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KINDERGARTEN GUIDE

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BY

LOÏS BATES

AUTHOR OF "RECITATIONS FOR INFANTS," "SALTAIRE ACTION SONGS,"
"SALTAIRE KINDERGARTEN GAMES," "GUESSING GAMES,"
ETC., ETC.

WITH OVER 200 ILLUSTRATIONS AND 16 COLOURED PLATES



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39 PATERNOSTER ROW, LONDON

NEW YORK, AND BOMBAY

1902

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THE MISSIONARY SOCIETY OF AMERICA, NEW YORK, N.Y.

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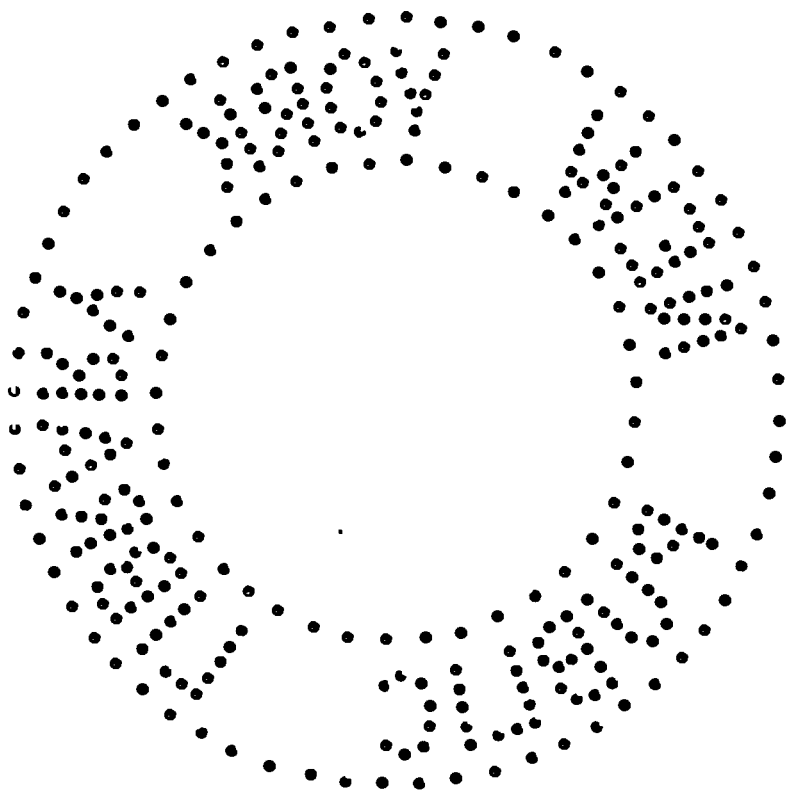
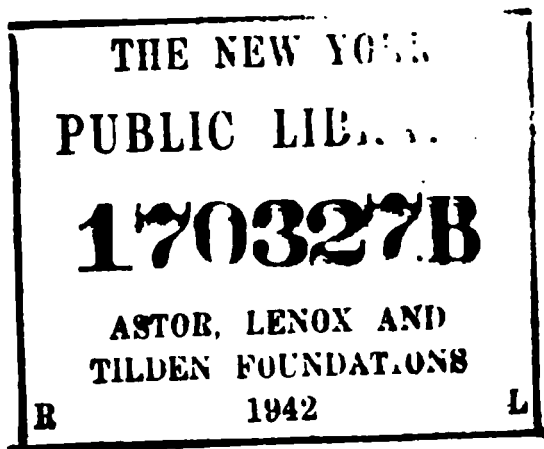
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P R E F A C E.

IT is a matter for regret that the Kindergarten system, which is so well adapted to educate in the highest and best sense of the word, has been so little understood and practised in England. Any one who has carefully studied the subject must be convinced that, for young children, at any rate, it is the only *right* system of education. But Fröbel's principles can never be understood by the superficial observer, any more than a knowledge of plant life can be obtained by a superficial glance at a plant. For this reason I would ask for this book, not a cursory glance at the various chapters, but a careful study of the whole. I have tried to show how ordinary school subjects may be taught on Kindergarten principles, but this will only be understood by those who have first apprehended the fundamental laws of Fröbel, as explained in the first Chapter, and illustrated by the Gifts and Occupations following. No Teacher will be likely to use *all* the Gifts and Occupations, but to gain an intelligent conception of *any*, it is necessary to study the connection of all, so that one may see how each grows out of, and complements, the one that precedes it, and how all are woven together into a complete and beautiful whole.

Information concerning Books and Apparatus mentioned is given in the Appendix, when it is thought that such information may be desired by the reader.

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C. A. TRIMMER, D. D.

My thanks are due to Mr. Sachs of Bradford for his skill and care in taking the photographs from which many of the illustrations have been prepared.

I am also indebted to the Authors from whose works I have quoted. If in any case the Author's name is omitted, it is because I have failed to remember the source from whence the idea originally came, and my apology is herewith offered.

LOÏS BATES.

SALTAIRE.

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CHAPTER I.

FROBEL'S PRINCIPLES.

SINCE the days of the Teacher Divine, whose infinite tenderness and love for the children were expressed in those memorable words, "Suffer the little children to come unto Me," there has arisen no teacher who understood child-life so well or penetrated so deeply into its secrets as Friedrich Fröbel. The early life of animals and plants has received far more attention than the early life of childhood, and yet most people will admit that the first six years of a child's life are the most impressionable and important. "Give me the first six years of a child's life, and I care not who has the rest."

Everybody believes that moral training is of paramount importance and that the formation of character is of the greatest value. Surely it is a gross mistake to consider the child merely as a *physical* being, during the most impressionable years of its life! If it is true that the well-being of men and nations depends on what the *man* is, and that the well-being of the *man* depends on what the *child* is, then how important it is that the child should develop all within that is good and pure and noble! Which of us knows what latent powers of good may have been lost in his or her own nature for want of tending in the early years of life, and who can say what forces lie in the undeveloped childhood around us! Whether a man becomes a slave to his passions or a conqueror of self depends a great deal on the foundation laid in early life.

"The child contains in germ all that it will be in manhood." It is ours, then, to see that these precious germs do not wither for lack of culture in the little human plant. But how shall we cultivate them? Fröbel's teaching gives the answer. Every human being," he says, "is in his spiritual origin a particular thought of God." The child is Divine as well as human, and education does not fulfil its mission unless it develops the Divine essence in the child.

Herbert Spencer defines education as "Preparation for complete living". Another writer (Baroness von Marenholtz-Bülow) says "Education is emancipation—the setting free of the bound-up forces of body and soul. Its chief aim should be the formation of character."

Fröbel holds that the great object of life is to develop the Divine in us, and that the spirit can and ought to be developed with and at the same time as the body and mind. It is this want of harmonious development of the threefold nature, moral, mental, physical, that causes the discontent and unhappiness of our race. Educational facilities are greater than ever, and physical development is now made a part of education, but, unless the moral nature is developed at the *same* time, the child is not "prepared for complete living".

Fröbel says, "Man is made in the image of God, and his destiny is to become like Him. Man is at once the child of nature, the child of humanity, and the child of God, and the aim of education is to bring him, while he is a child, into harmonious relations with all the three."

Linked together in one whole the parts of life must be,
The end and aim of child-life is blessed unity.

All Fröbel's teaching is based on natural law. He felt sure that just as the physical and mental capacities are developed according to *law*, so should be the spiritual. In studying childhood he noticed its great love of activity and movement;

how the child exercises its sense of touch by grasping things, how it watches, and listens, and seems delighted to use its senses, and Fröbel determined that it was by directing these natural expressions of child-life that the educator could aid in the threefold development of his nature. A child's activities should not be left vague and purposeless, but as Baroness von Marenholtz-Bülow beautifully expresses it: "Every delight of the senses should be used as a means for loosing the fetters of the child's soul, for ministering food to the spirit, and opening the gates into the region of the beautiful. Without cultivation of the senses, cultivation of the soul is impossible."

The child's education begins when it becomes interested in the objects that surround it, and Fröbel in his "Mother Play and Nursery Songs" shows the mother how she may aid in the child's development from the first dawn of intelligence. The child, then, is to be educated by the direction of its own natural activities, and in the early years of life there is only one right form for these activities to take, and that is *play*; or, in other words, work is to be made such a delight to the children that they will love it, and be just as happy in it as they are at play. This was Fröbel's great inspiration, to organise play as a means of education, and in this he manifested his genius. He saw that "to cram the child with the ideas of grown-up people was to choke its natural growth," and that the only right way to educate was to surround the child with favourable conditions that would assist its natural instincts. Fröbel puts *action* in place of abstract learning, and by the Kindergarten system seeks to place the child in a little world of action in which it can develop itself. Make the child happy, for "Virtue kindles at the touch of joy". Make it pleasant for the child to do right. Fröbel does not deny the existence of a disposition towards evil, but he would have us give the child a bias in the direction of good, and it is easier for him to be good when he is happy.

The child, then, finds its greatest happiness in the exercise of its faculties—in *work*, which in the child-stage is only another name for organised play.

“The games of childhood are the heart-leaves of the future life,” in them is expressed the child’s innermost nature. The child who plays earnestly will live in earnest when he grows older. “The sources of all good are in play.” How then did Fröbel use play as a means of education? He noticed that children loved to work in mud or clay, hence he gave them clay-modelling. He saw them examine their toys, and try to get at the heart of them, very often by breaking the toy, and he invented the divided cube. Children love to build and construct, so he provided material for building; they love colour, and in his 1st Gift, as in many of the occupations, this desire is gratified. They are fond of sketching and drawing, therefore a system of drawing finds its place in the Kindergarten, and they are always charmed by music and rhythmic motion, hence Fröbel’s Kindergarten games. He noticed, also, that children love to be out of doors, and so he would take the children of his Kindergarten into the fields and woods and inculcate a love of nature from the child’s earliest years. “From every object in nature,” says Fröbel, “there is a way to God.”

He noticed that the year-old baby, watching a revolving ball, gradually took its eyes from ball to string, and followed the string until it came to the hand that moved it. Just so in nature, the child seeks to know the *cause* of things. “Who painted the flowers?” he asks. “Who made the glorious sun?” The same God who made thee, dear child, and as the flowers and the sunshine express what God intended them to express, so must the child try to do the same. We know how readily the child’s heart responds. To him the thunder is the voice of God, the sunshine is His smile, all nature is an expression of His goodness, and the

child, seeing God in everything, loves Him. The child's first music lesson should be from the voices of nature. Let him listen to the murmuring brook, the rustling leaves, the gentle tinkling of the harebells or ripe golden oats, and the harmony will enter his soul.

A garden or plot of ground is an essential feature in Fröbel's system; he would have one attached to every Kindergarten. The following incident told by the authoress of *Child Nature* illustrates the valuable use that may be made of a garden: "Two little girls, of four and five years of age, had, like the rest of the children, sown a few peas and beans in their own little plot of ground. Day by day they would grub up the soil with their little hands to see why the seeds did not grow. It was explained to them that if they wished to see the seeds come up they must wait patiently, and leave them undisturbed. So the children waited and watched, until one day the teacher found them bending over the flower bed and gazing with delight at two or three little green blades. Then she said, 'Who made the seeds grow?' and the children answered, 'It was God!' 'Yes,' said the teacher, 'He sent the sunshine and the rain to warm and moisten the earth, so that the damp soil could soften the seeds and make them grow. He did this to make you happy, what will you do to please Him?' 'We will be very good,' said the children, and the youngest one exclaimed earnestly, 'I will do something to please God'. Later in the day when the children had been weaving little mats with strips of coloured paper and the teacher asked each child for whom its work was intended, the child before mentioned replied, 'I am going to give mine to God'." This little incident shows how easily the higher nature may be touched, and how gladly the child responds.

Fröbel would also have the children taught to love and care for animals, "their little brothers and sisters lower down," as some one has happily termed them, and this, he

says, will lay the foundation for the love and care of human beings in later life.

Fröbel says that "Work is salvation," and so it is, if the work be made to express the best and highest that is within us; it becomes then a means of spiritual development. When the fingers are moved by the mind, work is *not* a curse, but "the highest blessing of mankind, and that which bestows on it its nobility" (Baroness von Marenholtz-Bülow). "Learn through doing," says Fröbel, but "it must be a *doing* which blossoms into *being*, for it is character building which has to go on in the Kindergarten" (K. D. Wiggin in *Children's Rights*).

Man is a creative being, because he is made in the image of God, and first and foremost he should be trained to create, not to copy or imitate. Work should be a *means* to knowledge, and the beauty of Fröbel's system is that it has discovered a plan by which "children, unconsciously, and even while at play, are fashioned into workmen". Rousseau says, "Children easily forget what has been shown to them, or what they have been told, but what they themselves have made they never forget". This has been confirmed by the writer's experience. She has known boys of twelve or fourteen years come into the Kindergarten school to see designs in drawing, or other work done by their own baby fingers at five or six years of age, which the teacher has preserved; and the boy's face has flushed with pleasure as he showed the work to one or other of his boy companions.

When we can infuse into the child's work a sense of obligation to others, or make it a means of giving pleasure to others, it reaches its highest significance. The authoress of *Children's Rights* illustrates this so beautifully that the writer cannot help quoting the passage entire.

"In a high dormer window of a great city, in a nest of quilts and pillows, sits little Ingrid. Her blue Danish eyes *look out from* a pinched, snow-white face, and her thin

hands are languidly folded in her lap. She gazes far down below to the other side of the square, where she can just see the waving of some green branches, and an open door.

“ Her eyes brighten now, for a stream of little children come pouring from that door. ‘Look, mother,’ she cries, ‘there are the children!’ and the mother leaves her washing and comes with dripping hands to see every tiny boy look up at the window and flourish his hat, and every girl wave her handkerchief or kiss her hand. They form a ring; there is silence for a moment, and then, ‘mid great flapping of dingy handkerchiefs and battered hats, a hearty cheer is heard.

“ ‘They’re cheering my birthday,’ cries Ingrid. ‘Miss Mary knows it’s my birthday. Oh, isn’t it lovely!’ And the thin hands eagerly waft some kisses to the group below.

“ The scene has only lasted a few moments, the children have had their run in the fresh air, and now they go marching back, pausing at the door to wave ‘good-bye’ to the window far above. The mother carries Ingrid back to her bed (it is a weary time now since those little feet touched the floor); but the bed is not as tiresome as usual, nor the washing as hard, for both hearts are full of sunshine.

“ Afternoon comes—little feet are heard climbing up the stair, and Ingrid’s name is called. The door opens, and two flushed and breathless messengers stand on the threshold. ‘We’ve brung you a birfdays present,’ they cry; ‘it’s a book, and we made it all our own se’ves and all the chilluns helped, and made somefin’ to put in it. Miss Mary’s downstairs mindin’ the babies, and she sends you her love. Good-bye! Happy birfdays.’ ‘Happy birthday,’ indeed! Golden, precious, love-crowned birthday! Was ever such a book so full of sweet messages and tender thoughts!

“ Ingrid knows how baby Tim must have laboured to sew that red circle, how John Jacob toiled over weaving that mat, and Elsa carefully folded the little drove of pigs. Every

body thought of her, and all the 'chilluns' helped, and how dear is the tangible outcome of the thoughts and the helping!"

Could any one imagine children trained in such an atmosphere of loving thoughtfulness growing up into selfish, cynical men and women! This is love in practice (for love comes before faith), and it is the only right way of teaching the child to be good, for it is just as impossible to attain goodness without practising it as it is to attain mental capabilities without practising mental faculties. "To help is to do the work of the world." To a child it is a great pleasure to help, he learns the joy of sharing, and it is the highest honour he can reach.

The Kindergarten games teach unity, and also self-denial, for each must do his part before the whole can be represented, and sometimes a child may not be allowed to take just the part he would choose. In the "Bird" game, *e.g.*, all cannot be birds, some children must be "trees," and others must form a "wall" round the "wood". The pleasure of the one must be subordinated to the good of the whole, and the child thus learns to consider the rights of others, and to practise self-denial. He sees how other lives touch his own. In the care of animals and plants important traits of character are cultivated. We love that which we tend, and the child who has learned to love flowers and plants, to water them and care for them, and to nurture animals and feed them (all of which means some amount of self-denial), will, when older, be capable of making sacrifices for human beings whom he loves. If it is not possible to have a plot of ground in connection with the school, let the children sow seeds in pots or boxes, it will not do for the teacher to sow them; the children must do it for themselves if they are to be thoroughly interested. If no other pets are available, there might be *a canary in a cage*. English song-birds should never be

confined, but as the canary could not live out of doors in our country, it is not cruel to keep it in a cage. One teacher had tadpoles in a large globe in school, which the children eagerly watched day by day until they should see them change into frogs, which were then taken back to the pond. Other items of interest are described later, in the chapter "Description of a Kindergarten".

In the early years of life the word and the object must never be separated, the child should *see* that which it names and learns about. Further, as Pestalozzi taught, "Every new idea must be connected with something already known". But how? Here Fröbel's "law of balance," or "reconciliation of opposites," comes in. The new object (for during the first six years of life all teaching should be object teaching) must be connected with an object already known by comparison. This is illustrated admirably in Gift II., where the cube and cylinder are introduced with the sphere, whose form the child has already recognised in the soft ball of Gift I. The sphere and cube present a total contrast to each other, and for this reason can be easily compared; the cylinder partakes of qualities of both, and is therefore the connecting link between. This principle will be illustrated more fully in treating of the different Gifts and Occupations, etc.

The Teacher.—Fröbel compared the life of a little child with plant life, and drew this obvious conclusion: that just as it is necessary for the gardener to understand the *nature* of the plant he is tending, and to know what conditions are favourable to its well-being, even so is it of vital importance that the "gardener" of the little human plant should understand the nature of that which she trains, and know exactly what means to use for its development. Whoever would guide a child's soul should have some knowledge of its nature. "The whole principle of Fröbel's teaching is based on a perfect love for children, and a full recognition of their nature," and

since Divine Wisdom has so created them as to find happiness in the active exercise and development of their faculties, we should try to direct these energies, and find means for the child's activity to express itself. A true teacher becomes in spirit a child with the children, so that she may fully sympathise with them. Given the strong love for children and a child-like nature, and enthusiasm, without which nothing good or great is carried out in this world, we may hope to attain some of that power (with which Fröbel was so richly gifted), to penetrate straight to the child's soul, and to call out and foster the Divine spark that is latent there. "Let it be our aim that every good thought should grow into a deed."

To quote from *Children's Rights* once more, "The ideal teacher of little children needs strength and delicacy. She needs a child's heart, a woman's heart, and a mother's heart in one; she needs clear judgment and ready sympathy, strength of will, keen insight and oversight, the buoyancy of hope, the serenity of faith, and the tenderness of patience. The hope of the world lies in the children."

CHAPTER II.

DESCRIPTION OF A KINDERGARTEN.

PICTURE to yourself a bright, lofty room, with a large gallery at one end. The classrooms are ranged on each side of the principal room, from which they are separated by glass partitions. The room is well lighted from above, and also from one end, and the walls, which are of a pale green tint, are adorned with bright, pretty pictures, and numbers of brackets, on which we see vases of flowers, as also on the teacher's desk and on the table and piano. At one end of the room is the museum-cupboard, containing curiosities, some of them contributed by former scholars, now grown up, and some by interested visitors. Here is seen a lamb's foot, the foot of a hen, the foot of a duck, and many models of animals and birds. The manufacture of cotton, wool, and other things is shown in the different stages.

On the top of the museum are two cages in which canaries live, while in front is a large box with ferns growing in it.

Models of Objects.—In another room are miniature representations of a farmyard, a cornfield and jungle. Each of these is in a wooden tray, one yard square. The "jungle" is made by placing a layer of soil in the tray to the depth of half an inch, the soil being damped before the grasses, etc., are stuck in. The "cornfield" is made in the same way, each stem being cut from nine to twelve inches long; half the "field" is planted with corn, and the other half with stubble, on which rest the sheaves of corn, and a toy sickle.

The "farmyard" has a stone trough, and groups of animals, such as are seen in a farmyard, also a diminutive stack of hay, and another of corn.



FIG. 1.

The "desert" is a tract of sand with a tiny oasis, and camels are crossing (see illustration above). There are other objects of interest in this room, such as a "stable," a "barn" and a "cowhouse"; a mail-cart, which is used to give the babies rides in the playground, a rocking-horse, a see-saw, and a large bag containing tops, whips, skipping ropes, etc., for use in the playground.

Classrooms.—Now we will enter the rooms where the children work. Each room contains forty little chairs, and twenty dual Kindergarten tables, all of which are screwed fast to the floor.

The sketch (Fig. 2) shows a Kindergarten table with two sizes of chairs. The larger size is used with an ordinary sloping desk for older children. The smaller chair is the one used with the table here given.

In the classrooms again, we see numbers of pictures, and *brackets* with plants or flowers, the latter also adorn the

window sills. Every room is bright and pretty, for the mistress believes with Fröbel that it is easier for the children to be good when their surroundings are pleasant and attractive. The framing of pictures has been paid for with the proceeds of Mayday Festivals which are held annually.



FIG. 2.

Each teacher prepares her classroom for the first lesson before school commences. If it is building, the boxes of cubes are all placed ready for passing, at the end of each row, so that no time is wasted. The "Signal," which is described later, is also laid on each teacher's desk ready for use.

Morning School. As the time approaches for beginning school, the patter of little feet is heard, and the teachers enter the cloakroom, and help the little ones to take off

their outdoor wrappings. Then one of the teachers seats herself at the piano, and the children march in to the sound of happy music, in which the birds join heartily. By-and-by the pupils take their places on the gallery, and sing a simple morning hymn. After this is finished, a "chord" is struck on the piano, which the children know means "turn to right".

At the sound of a *second* chord, they turn to right again, so that they are now facing their seats.

At the *third* chord they kneel on the seat, and the teacher says softly, "Hands together, eyes closed". Then they repeat a simple prayer. When this is finished, the chords are again given thus:—

First Chord. Hands down and open eyes.

Second Chord. Stand.

Third Chord. Turn to left.

Fourth Chord. Face teacher.

Now a pleasant good-morning is exchanged, and the teacher invariably makes this the opportunity for a little chat with the children. "What kind of a morning is it?" "It is a bright morning." "Why?" "Because the sun is shining." "Some of the children brought flowers to me this morning. Why do we have so many flowers just now?" "It is Spring." "What did you notice on your way to school?" Perhaps one child mentions the blue sky or the white clouds. Another notices that the trees are budding, the birds singing, and some may have seen little lambs in the fields. It is quite wonderful what an amount of information is gleaned by the children in these morning chats, which do not last more than five minutes. They learn to note the seasons, with their various changes, and to become deeply interested in the springing of the flowers, the changes in the leaves, the return of the birds, the hoar frost, the snow, etc., and all the simple phenomena of nature. The teacher always treasures up for the benefit of the children any little experience of her own, such as the following:—

“I went for a walk in the woods last evening and there I heard a bird sing that always comes with the springtime ; can you guess its name ? ” “It was the cuckoo,” say the children. “Do you think I saw its nest?” “No, it does not build a nest. It lays its eggs in another bird’s nest,” and so on.

Bible Lesson.—After this little talk the daily Bible or moral lesson is given. This morning it is the story of the “Good Samaritan,” and the children listen with eager interest to the description of the three men and what they did. In answer to the question, “Which do you like best?” they promptly reply, “The man with the camel”. The teacher then proceeds : “I do not think we shall be able to help any one just as this man did, but there are other kind things that we can do. I saw a little girl in the cloakroom just now untying a hard knot for her little sister. I wonder if you can think of any other way of helping?” “We can help the little ones to fasten their coats, and we can help them down the steps.” “And what about mother, who does so many kind things for you?” suggests the teacher. “We will do what she tells us,” says one. “There are other things we can be kind to,” says the teacher. “I will just see if the birds are fed, and if not, one of you shall attend to them ; or the plants may need water, and we will give them some.”

The Teachers.—The teachers make a point of being neat in their dress and appearance, so that they may inculcate with a good grace the same virtues in their pupils. It is easy to see that teachers and children alike have their hearts in their work, which might be more correctly named “play,” for to children “work made pleasant” is play. Each Wednesday after school the head mistress and teachers remain for an hour to talk over matters that affect the interests of the school. The “talk” is generally preceded by a cup of tea, provided by the teachers in turn, then each one

is free to introduce any point for explanation, or to state any difficulty that has arisen in her work. Sometimes these friendly gatherings afford occasion for the head teacher to give further instruction in Fröbel's methods and principles, and it is here that much work of the school is arranged. Perhaps a new game is about to be taught, and the head teacher will say, "The next Kindergarten game is to be the 'farmyard'. How can you connect it with your Kindergarten lessons?"

"My class can fold a duck or a hen," says one teacher, who has paper-folding. "Mine will build a trough," says the teacher of Class II., who teaches building. The "babies'" class will be delighted to have a "duck pond" in sand. The children who have stick-laying will lay the "hay stack," the "barn" will be perforated and embroidered by another class, the "dog kennel" and "farmyard gate" can be built with Gift IV., and object lessons will be given on animals or objects that are found in the farmyard. These suggestions are all noted, and subsequently tabulated and kept for reference. (See the table showing connection of lessons at end of chapter.)

Perhaps some happy idea has struck one of the teachers in her work, some better method of making instruction clear, and the happy thought is given for the benefit of all. There is to be no such thing as self-interest, all are working for the common good, and each tries to remember that the physical and mental culture of her charge is to be made the means of developing that part of it which lasts for ever—its character. This thought that the moral training of the child is of first and utmost importance is frequently brought before the teachers, and, to help still further, they read together some portion of Scripture each morning, before the time for opening.

The Signal.*—The signal here illustrated has found its

* See Appendix 1.

way into a great many schools, and for saving the teacher's voice, and securing discipline with the minimum expenditure of strength, it is, without doubt, most valuable. We find it quite possible to stop the marching, or singing, or reading of a number of children with one click of this little instrument. It is held by the teacher as shown in the illustration, and can be used to indicate a number of words of command, *e.g.*, suppose the children are standing, and the teacher wishes them to sit, she strikes the signal and then waves it downwards. If they are standing in rows and the teacher wishes



FIG. 3. The Signal.

them to turn, she strikes the signal and points it in the direction required. In a reading lesson the signal may be used largely instead of the voice. If a mistake is made, the signal is struck twice sharply, and the child goes back and corrects the error. When another child is required to read, the signal is struck once, and pointed at the child who is to read next. It will be found that the children are on the alert for signs, and the attention is much closer than where the voice only is used, for, when the commands are given by the signal, the children must look up to find out what is required of them, and this teaches them to use their eyes.

TABLE OF CONNECTIVE LESSONS.

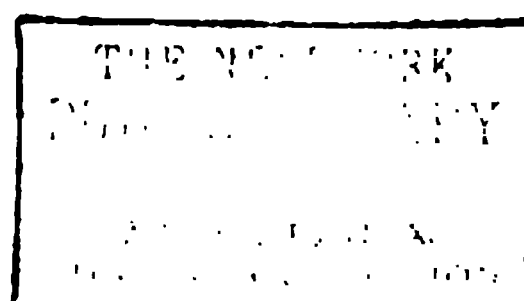
Object Lesson.	Kindergarten Game.	Building.	Stick-laying.	Drawing.	Embroidery.	Paper-folding.	Modelling.
Spring Spring flowers Sycamore	"Spring Game" *	Field or Wood	Spade Flower-pot	Leaf of Sycamore more	Leaf of Sycamore : and Spring flowers	Seed vessel	Bird's nest or leaf
Farmyard Duck Bed	"The Farmyard" † or "The Ducks" ‡	Trough Farmyard gate	Pigeon house Hay stack Dog kennel	Rake	Duck, hen, or barn	Trough Duck Bed	Milk pail, Trough : or Duck pond in sand
Loaf Wheat Corn-field	"Reapers" † and "Guessing Game," † "Corn"	Field or Barn	Corn stack	Sickle	Wheat	Table and cloth Windmill	Loaves or Cakes
Autumn Nuts Squirrel	"Autumn Game" † and "Guessing Game," † "Nuts"	Wood: or Nest for Squirrel	Gate of Wood	Nuts	Oak leaf and acorns	Box to hold nuts	Nuts and Fruit

Nearly all the Objects mentioned are illustrated in the Chapters on the various Kindergarten Gifts, etc., which follow.

* Spring Game, see Appendix 2.

† Guessing Games, see Appendix 3.

‡ Kindergarten Games, see Appendix 4.



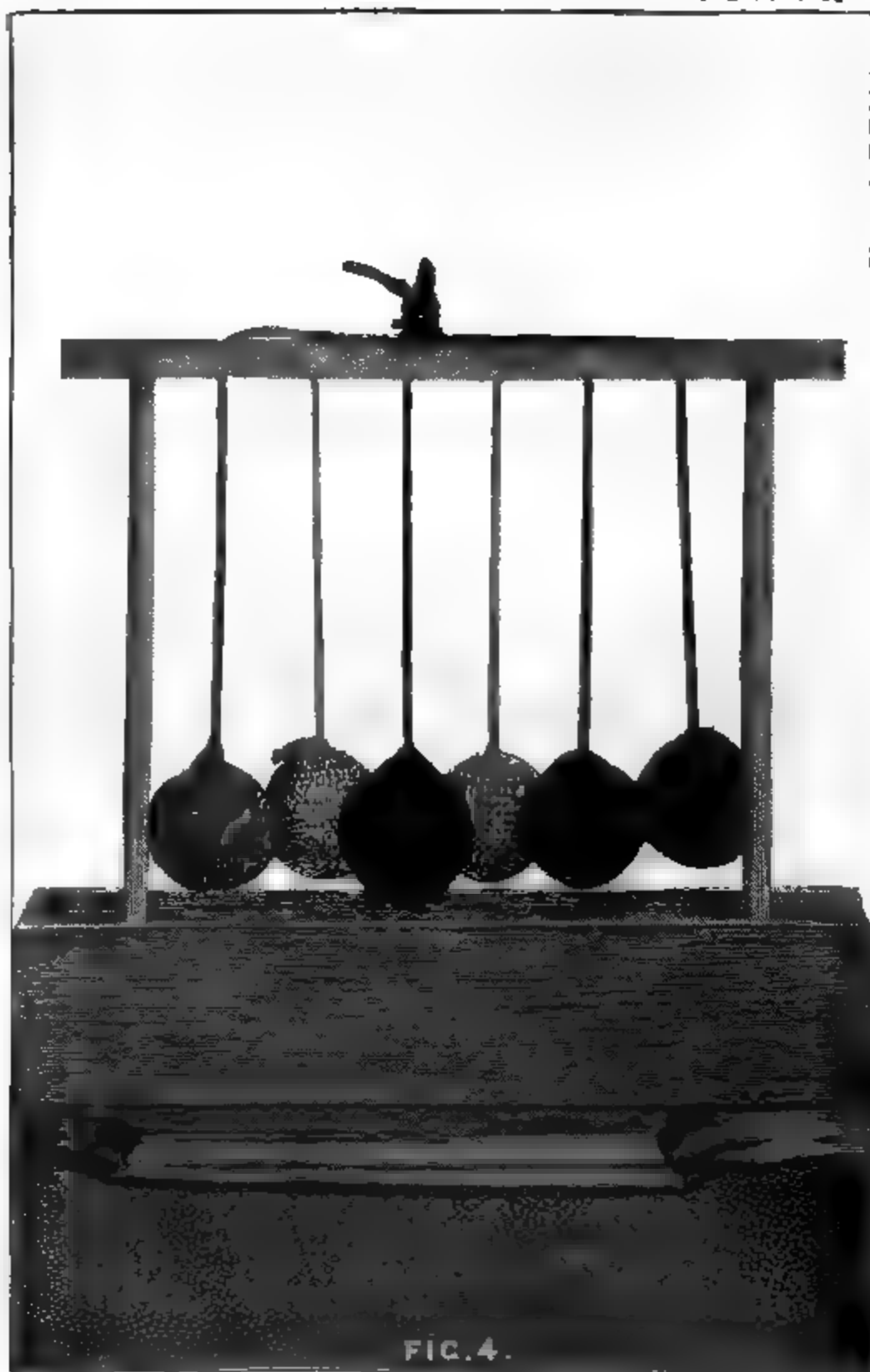


FIG. 4.



CHAPTER III.

GIFT I.

FIG. 4. (See Coloured Plate 1.)

What it is.—Gift I. consists of six wool balls, contained in a box, each ball showing one of the colours of the rainbow. There are also six coloured strings, one for each ball, and three pieces of wood that form a movable framework, from which the balls can be suspended, as shown in Fig. 4. (See Coloured Plate I.)

Why chosen.—Fröbel chose the ball as the child's first plaything, because it is the most simple, and yet the most complete of all forms.

The child's little hand holds it easily, for it is light and soft, while the various motions, of which the ball is capable, make it a source of delight. It is indeed a favourite plaything both with the young and the old, and in the hands of an intelligent teacher it lends itself admirably to that gradual unfolding of the child's nature which is so essential a feature of Fröbel's system.

The *eyes* are trained by watching its movements.

The *ears* by listening to the sounds it makes.

The sense of *touch* by handling it.

The *muscles* of the body are strengthened by the healthy actions of the games.

Feelings of *friendship* and *kindliness* are cultivated when the children combine to play the games.

The following pages show some of the ways in which Gift I. may be used.

Each division will occupy many lessons, but the divisions should be alternated daily thus: if we take "colour" one day, the "motions of the ball" might form the subject of next day's lesson, and so on.

(a) **Description of the Ball.**—Teacher: "What shape is the ball?" Child: "The ball is round". "What other things are round like the ball?" "An apple, orange, the sun, the moon." (In each of these answers, the teacher should insist on a complete sentence, thus: "An orange is round," then the lessons on Gift I. will prove a valuable means of training the children to express their thoughts, and to speak correctly.) Let a child grasp the ball, then ask how it feels. "The ball is soft." "What other things are soft?" "My dress, my cheeks, etc., etc." "Now feel the box." "It is hard." "What other things are hard?" "Glass, coal, stone, gold, etc."

Teacher: "What is the ball made of?" Child: "It is made of wool".

"Tell me other things that are made of wool." "Stockings, dresses, etc," always answering in a complete sentence.

Teacher: "Where did the wool come from?" Child: "It came from the sheep".

Show a picture of a sheep, or, better still, let the children see it in the fields, if this is possible. "How kind the sheep is to give us its soft, warm wool to make the pretty ball!" Describe the shearing—how the sheep are first washed, and then their thick coats are taken off, because the warm weather has come. The sheep is much too hot in his heavy coat, just as little children would be if they wore winter clothing in summer.

KEY D.

BALL SONG.

{ : s | d' : s | m : d | s : s | s : s | d' : s | m : d }

1. The ball is such a pret-ty thing, A - bout it I do

{ | s : s | s : s | f : f.m | r : s | m : m.r | d : m }

love to sing, So round it is, and light and soft, I

{ | r : f | t, : r | d : d | d || }

hold it in my hand full oft.

2. 'Tis made of wool, and do you know
That on a sheep the wool did grow?
Until some men the fleece did take,
Warm clothes and pretty balls to make.

(b) **Colour.**—Arrange balls in box so that the red ball appears first when the lid slides off, then yellow, blue, orange, etc., follow.

Teacher: "I will slide the lid a little way, so that you



FIG. 5.

may see just one ball. What colour is it?" Child: "It is red".

Teacher: "What other things have you seen that are red?" Child: "Some dresses are red, the fire is red, and there are red flowers".

Then teacher might say : “ One evening just before it was dark I saw a great red ball in the sky, and it sank lower and lower, until it went quite out of sight. What was that ? ” “ It was the sun. ” “ Johnny may hold the red ball in his hand. Now you shall see another ball. What a pretty colour it has ! Who can tell it ? ” “ It is yellow. ” “ Tell me all the things you know that are yellow. ”

When children have exhausted all they know, the teacher may help them, thus : “ I have something in my purse that is yellow ”. C. “ Some money is yellow. ” “ And what do you see on mother’s finger ? ” “ Her ring is yellow. ” “ And at her throat ? ” “ A brooch is yellow. ”

T. “ What are all these made of ? ” C. “ They are made of gold. ” “ So we will say, ‘ Gold is yellow ’. Mary shall hold the yellow ball, because her hair is nearly the same colour—it is golden hair. ” Then comes the blue ball, and the children will remember that the sky is blue, the sea is blue, and some children have blue eyes. Perhaps we may find a little girl with a blue dress, and she shall hold the ball.

When all the colours have been talked about in some such way as this, the children to whom the balls have been given may come out, and holding up each ball in turn say : “ My ball is red, ” “ My ball is yellow, ” and so on.

Ball Song.—The children stand in a row, keeping their balls behind them, until the colour each holds is mentioned in the song, then the ball of that colour is to be held out in front.

KEY E.

{ : s₁ | d : — : r | m : — : f | s : d' : l | s : — : m | s : — : f | f : — : r }

Some balls are red, and some are blue, A yel - low one I'll

{ | f : — : m | m : — : s₁ | d : — : r | m : — : f | s : d' : l | s : — : m }

show to you, Orange and pur - ple, too, are seen, And,

{ | s : f : m | f : — : t₁ | r : — : d | d : — ||

here, a pret - ty ball of green.

(c) **The Ball in motion.**—Take a ball with string attached.

T. “We will now see what the ball can do.”

Draw it along the floor or table, holding by the end of the string, children will say, “The ball can roll”. “Why can it roll?” “Because it is round.” “What else can roll?” “An apple can roll, an orange, etc.”

Now let the ball swing from right to left, children will say, “The ball is swinging to and fro”. “What can swing besides the ball?” “A child can swing, a little bird on a branch, a pendulum in a clock, etc.”

T. “In what other way could I swing the ball?” C. “You could swing it backward and forward.”

T. “Now I will twist the ball round quickly, holding by the end of the string,” the children will see that it makes a circle. If the string is twisted round the finger, while the ball is whirling round, the circle is thus made smaller, and children say, “The circle grows smaller, smaller,” and as the teacher *untwists* the string, “The circle grows larger, larger, larger”. Then the ball can *jump*, it can *bounce*, it can be tossed into the air, can be caught, can lie still, or can tumble. We can wind it up (by twisting string round finger), and can unwind it (by untwisting). “What else can we wind up?” “The blind, wool to knit with, a reel of cotton, a watch, clock, etc.”

Ball Game.—Give balls with strings attached to all the children, if possible, and let them stand in a ring, or in a row, with a space between each. The ball is held by the string, and should keep time to the music in the various movements, which are indicated by the words:—

KEY Eb.

{ | m : — : f | s : — : — | d' : — : l | s : — : — | m : — : m | m : r : d }

1. Swing - ing, swing - ing, swing - ing to and

{ | s : — : — | m : — : f | s : — : — | l : — : t | d' : — : — | t : — : d' }

fro, Back - ward, for - ward, pret - ty

{ r' : — : t | d' : — : — ||

ball can go.

2. Jumping, jumping, like a child so gay,
Rolling, rolling, what a pretty play!
3. Circles, circles, circles large and small,
See us make them with the nice, soft ball.
4. Tossing, tossing, I can catch you so,
Please don't tumble on the floor below.

(d) **Position.**—The following exercise is invaluable as a means of training the children to answer in complete sentences.

The ball (without string attached) may be placed on the table.

T. "Where is the ball?" C. "It is on the table."

(Then put it under the table.)

T. "Where is it now?" C. "It is under the table."

The ball may be put on a chair, and under it; on the floor, in teacher's pocket, on a child's head, in a drawer, in teacher's lap and many other places, the children always giving complete answers. The teacher may hold the ball above the table and ask "Where is it now?" "It is over the table." In this way the pupils will learn clearly the meaning of *under*, *over*, *upon*, etc. Teacher holds ball behind her, then before; to right, to left, etc., and all these terms, which are constantly used in the later Gifts, are thus learnt in childish play.

Ball Song (with actions).—At the commencement of the

song, the ball is in the teacher's pocket, then she places it in the other places as they are mentioned. After the teacher has played the game, six of the children should have balls and play it with her, then the balls should be given to other children until all have had a turn.

KEY E.

{ | d : d.r | m : m | r.d : r.m | d : — | m : m.f | s : s }

1. Where's the ball now? say, oh, say! In your pock - et

{ | f.m : f.s | m : — | d' : t.l | s : m | d' : t.l | s : — }

look, I pray! On your should-er, on your head,

{ | l : t.d' | s : m | f : r | d : — ||

. On the ta - ble see it laid.

2. It will lie upon my hand,
And my feet, if still I stand,
In my lap it goes to sleep,
While I sing, and safe watch keep.

3. Near the window, on the floor,
Next we place it by the door,
On the chair it lies quite still,
We can put it where we will.

(e) **The Box.**—Teacher might begin by saying: “You would like to talk about the box where the pretty balls are kept, let us look at it!” Its faces have each two long edges and two short edges, so all the faces are oblong. Think of other things that are oblong—“slate, door, table, window, etc.”.

“What is the box made of?” “It is made of wood.”
“Where did the wood come from?” “It came from the trees.”
“Who cut the trees down?” Show the children a picture of a woodman at work, or, if possible, let them see the actual wood-cutting. When the tree is cut down the sawyer saws it into slices (planks), and then who makes the box? “What other things does the joiner make?” “Tables, chairs, etc. etc.” “Now look at the lid—how does it come off?” “It

slides off." (Show a box which has a *hinged* lid that only lifts up, and another from which the lid *lifts off*.)

The following illustration (Fig. 6) shows the three different kinds of lids.



FIG. 6.

The box can lie on its side, can stand on end, or can be turned upside down.

KEY D.

SONG.

{ | d : d.r | m : m | r.d : r.m | d : — | m : m.f | s : s }
Here a box of wood you see, Which kind join - er

made for me, Six soft balls are in it hid

{ | f.m : f.s | m : — | d' : t.l | s : m | d' : t.l ' s : — }
made for me, Six soft balls are in it hid

made for me, Six soft balls are in it hid

{ | l : t.d' | s : m | f : r | d : — |
By the pret - ty slid - ing lid.

By the pret - ty slid - ing lid.

(f) **Ball Games.**—These should be interspersed with the conversational lessons; and, for this reason, an appropriate song or game has been given with each division. The following may be played with any "Ball" lesson:—

LULLABY SONG.

We pretend that the ball is a little bird, and the child's lap is its nest, or the two hands put together, palms upward, with fingers bent, may be a cradle, and the ball a little child being rocked to sleep.

KEY F.

{ | m : r : s | d : r : m | f : r : s | d : — : — }

Ba - by in crad - le safe - ly doth lie,

{ | f : r : s | d : r : m | f : r : s | d : — : — ||

Rock - a - bye, ba - by, rock, rock - a - bye.

or

Birdie in cosy nest safely doth lie,

Rock-a-bye, birdie, rock, rock-a-bye.

The children, holding their hands as described above, sway them to and fro, keeping time to music.

Ball Game.—The children stand in rows facing each other, the rows being about two feet apart. One row might be boys, the other girls, and the latter might hold the balls, one each.

KEY D.

{ | d . r : m . f | s : s | l : l | s : — }

Stand - ing in two ev - en rows,

{ | f . l : s . f | m . s : f . m | r . f : m . r | d : — }

(1) To our part - ner each ball goes.

{ | s : s | m : d | l : l | s : — }

(2) Toss it back, and (3) hold it tight,

{ | f : f | m : m | r : r | d : — ||

(4) First in left hand, (5) then in right.

Instructions continued on p. 28.

(1) Girls pass balls to partners, *i.e.*, to the boy who stands opposite.

(2) Boy tosses ball to girl opposite.

(3) Girl holds ball in both hands.

(4) Ball in left hand.

(5) Ball in right hand.

CHAPTER IV.

GIFT II.

1. What it consists of.—Gift II. consists of a sphere, cylinder, and cube, all made of wood. They are enclosed in an oblong box similar to the box of Gift I., and may be suspended in a frame, the materials for which are found in the box.

2. Its use.—(a) Gift II. forms a perfect connecting link between Gifts I. and III.

(b) It is an excellent preparation for future Gifts and Occupations. The circle of the cylinder and the square of the cube prepare for drawing and writing, and also for Gifts III., IV., V., and VI., which are all closely connected with this one.

(c) The children are happy in watching the movements, and in learning all about the qualities of the different objects.

The first lesson of Gift II. might begin with a talk about the box. It is the same shape as the box of Gift I., but shorter, because it has not so many things to hold. It has



FIG. 7.

a sliding lid in which are two holes to hold the frame (see Fig. 7).

3. Comparison of the Sphere with Gift I.—Show the sphere with one of the soft balls, let a child feel both. “The ball is soft, the sphere is hard.” “Why is the sphere hard?” “Because it is made of wood.” “Why is the ball soft?” “It is made of wool.” “The sphere is smooth, while the ball is rough. Now let us feel the weight of the ball and sphere.” (Let a child hold the ball on one hand, and the sphere on the other.) “The sphere is heavy and the ball is light.” “If we drop the ball it makes very little noise, but the sphere makes quite a big noise.”

The ball is soft, but hard the sphere,
That's why it makes the noise you hear;
The sphere is heavier than the ball,
And smoother, say the children all.

All the games of Gift I. may be played with the sphere, and the various motions, swinging, jumping, etc., may be practised also. There is a brass loop on the sphere, to which the string may be fastened when it is used for movements.

4. Comparison of Sphere and Cylinder.—“What can the cylinder do that the ball can do?” “It can roll.” “Why can it roll?” “Because it is round.” “But it is not round like the ball. How is it different?” “It is flat at both ends.” “The ball has only one face, but the cylinder has three, and on two of them it can stand. What have you seen like a cylinder?” “A rolling pin, a jar, etc.”

The cylinder may be suspended from the hook in the centre of one of the flat faces, and may be used for the motions of Gift I.

The cylinder is round,
It rolls upon the ground,
Or stands quite still, if we
Place it on end you see.

Fig. 8.—If the cylinder be held with a double string attached to the hook in its side thus (Fig. 8), and rotated quickly, a sphere will be seen.

Turn, turn quickly and you'll see
Ball so round appear in me.

Fig. 9.—If the string be attached to the hook at the edge of the flat face thus (Fig. 9), a double cone is seen.

Now another figure see,
Two round cones appear in me.

By means of these little exercises the child begins to learn that one form is contained in another. The sphere contains both the cube and cylinder, and the cylinder contains the cone. When the children learn clay modelling they prove this for themselves.

5. The Cube and Sphere.—The sphere is round, the cube has not one round face, all its faces are square. Let us see how many faces the cube has. One at the front and one at the back, two. One at the right side and one at the left, two more; one at the top and one at the bottom, two more; (touch each face as it is mentioned, and let the children count). The cube, then, has six faces, while the sphere has only one, which is round, and all the cube's faces are square. Then the cube has corners, count them, there are eight; and the sphere has no corners. The cube has edges round its square faces (count the edges), there are twelve, and the sphere has not one edge. We will try to make the cube roll. "Why cannot it?" "Its corners

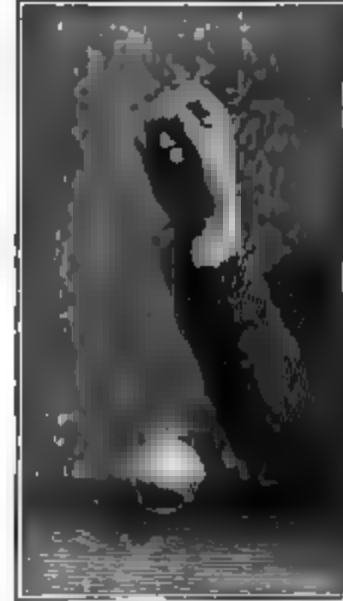


FIG. 8.



FIG. 9.

and edges will not let it roll." "But it can stand. On what does it stand?" "It stands on one of its square faces." "Can it stand on an edge or corner?" "Not unless we hold it." (Let the children try to make it stand on its edge.)

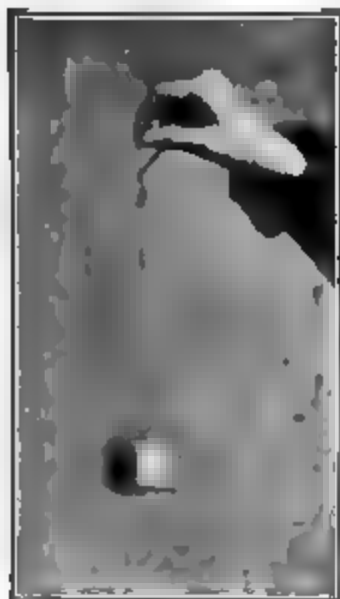


FIG. 10.

The Cube.—Eight corners, and twelve edges,
see,

And faces six, belong to me;
One face behind, and one before,
One top, one bottom, that makes four,
One at the right, at left side one,
And that counts six, if rightly done.

Exercises with the Cube.—Fig. 10.—If the cube be suspended by a double string from the centre of one of its square faces, and rotated quickly, a cylinder is shown.

Turn me quickly, and you'll see
Like a cylinder I'll be.

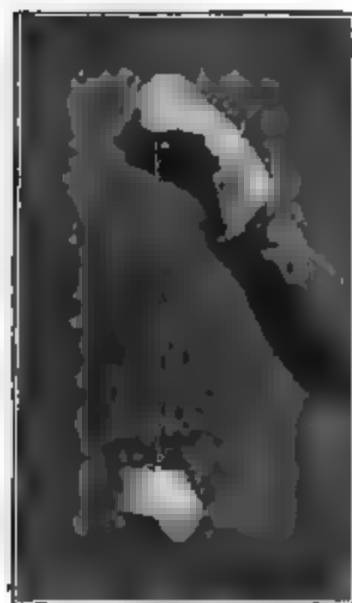


FIG. 11.

Fig. 11.—When the cube is suspended by a hook in the centre of one of its edges, and turned quickly, a form is shown that resembles the hub of a wheel.

A funny figure here is found,
When I am twisted round and round;
You've seen it in a wheel, maybe,
It is the hub that looks like me.

When the cube is suspended by a hook in one of the corners, and quickly turned, it looks like a double cone.

Swinging by my corner,
Quickly round I go,
Looking like two round cones,
With their points you know.



6. The Sphere, Cylinder and Cube.—The children should now see the three together, and note the points of resemblance. The cylinder can roll like the sphere, or stand like the cube, it has the qualities of each, and is, therefore, the connecting link between them.

Guessing Game.—The children may be allowed to distinguish the objects of Gift II. by touch only. Let a child come out and be blindfolded, or close its eyes without being blindfolded, then give to it the sphere, or cylinder, or cube, while the children say :—

Close eyes tight,
That is right ;
As you stand,
Hold your hand :
Feel with care,
What is there ;
Tell its name,
That's the game !

When the correct name is obtained the teacher asks, “How did you know it was the cylinder?” (supposing this has been the form given), and the child is encouraged to give the reason why he knew.

CHAPTER V.

GIFT III.

1. What it is.—Gift III. consists of a box containing a four-inch cube, divided into eight smaller cubes. The box has a sliding lid, and is just large enough to hold the divided cube.

2. Why chosen.—This Gift was chosen to meet an instinct which is seen in every child—the instinct of investigation. The child wants to look *inside* his toy to see what it is made of. He is not satisfied with an outside, superficial examination of an object, he would dive deeper, and get to the heart of things, and herein he shows wisdom. To meet this need Fröbel invented a Gift which satisfies the child's desire of investigation, but at the same time provides for reconstruction. The ordinary toy has to be destroyed before it can be examined, and the child tries in vain to put it together again; but in Gift III. the object can be taken to pieces without being destroyed, and thus the spirit of destruction is checked.

Gift III. satisfies the child's desire to create, invent, make something new. The power of representation is strengthened, the faculties of perception and imagination are cultivated, the child learns neatness and order, and gains an intelligent knowledge of common things.

3. Gift III. compared with Gift II.—The children have become familiar with the form of the cube in Gift II., there they have the cube as a whole, here the same whole is divided into parts, and now they begin to use the cube (about which they learnt in Gift II.) for themselves, and to make various shapes and forms with it.

Each child should have a box of cubes. The boxes may be placed at the end of the desks, and passed, while the following verses are sung:—

KEY D.

{ | d.r : n.f | s : s | l.t : d.l | s : — | f.l : s.f | n.s : f.n }
 1. Care - ful - ly and qui - et - ly Pass the box of

{ | r.f : n.r | d : — | s : s | n : d | l : l | s : — }
 cubes to me; Do not let it slip or fall,

{ | f : f | n : n | r : r | d : — }
 Gen - tle, care - ful, chil - dren all.

2. Now my box of bricks I see,
 O how happy I shall be
 When we build some pretty thing!
 * Clap, clap, children, as we sing.

4. **The Desk or Table.** Each child should have a chequered desk or table on which to build. (See Chap.

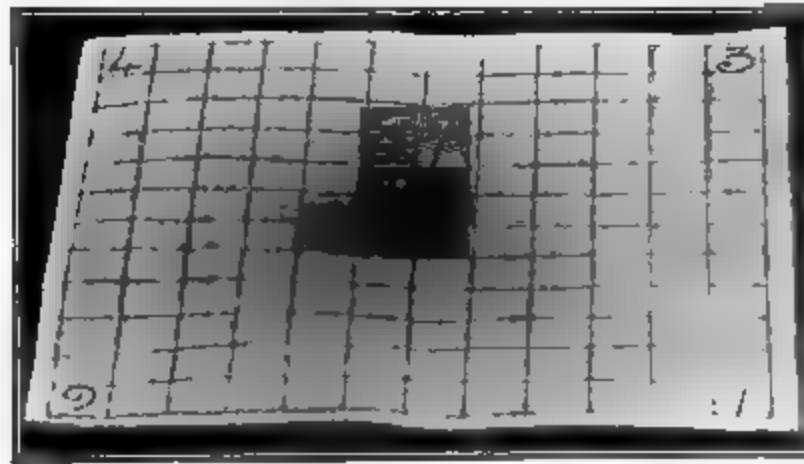


FIG. 12.

II., Fig. 2, Description of a Kindergarten.) If this is not possible, a square of cardboard (Fig. 12), ruled with

* All clap hands.

inch squares, should be placed on the desk for each child. Before proceeding to build, the children should learn which is the *centre* of the chequered square (marked **x**), the front right corner (No. 1 on sketch), the front left corner (No. 2), the back right corner (No. 3) and back left corner (No. 4). Let the box be put in each of these positions several times until the children know them quite well.

5. Drill for Opening the Box.—Each child places its box in the centre of the table, and when the teacher says

One. Right hand is to be placed on box.

Two. Slide the lid off about half an inch.

Three. Lift box up with right hand and place left hand under it.

Four. Turn box over and place on table, upside down, so that the lid is at the bottom.

Five. Draw the lid out gently, and put it at the top of the table.

Six. Lift the box carefully off the cube, and place it on the lid.

When the above drill has been given a few times, the children will remember what the various numbers indicate, without the words being repeated. The following rhyme may help them :—

One. On the box our right hands go,

Two. Slide the lid a little, so,

Three. Lift the box, use left hand, too,

Four. Turn it over, that will do.

Five. Draw the lid out, place it there,

Six. Lift the box, take care, take care;

On the lid it stands quite well,

All about your cube now tell.

6. The Cube.—Let the children count the six faces of the cube, touching each face as they count. (When the bottom

face is counted the child should put its hand under the table.) Then count the eight corners and twelve edges, and repeat the rhyme about the cube given in Gift II. "What is the cube made of?" "It is made of wood." "What other things are made of wood? Who made the cube?" "The joiner, etc." "What other things did the joiner make?" "He made the box." "What kind of a lid has the box?" "It has a sliding lid." "What other kinds of lids are there?" (See Fig. 6 in Gift I.) "How is the box different from the cube?" "It has a hole in it. The cube has no hole in it. The box is hollow because it has space inside." "What other things are hollow?" "A cup, a jug, a flower-pot, etc."

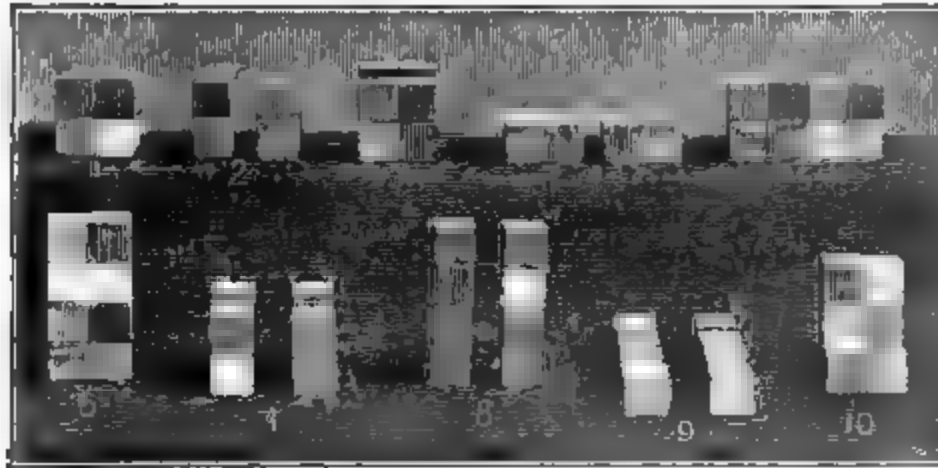


FIG 13.

- | | |
|-------------------|----------------------|
| 1. Cube. | 6. High Wall. |
| 2. } Cube divided | 7. Four Chimneys. |
| 3. } in different | 8. Two Chimneys. |
| 4. } directions. | 9. Street. |
| 5. Wall. | 10. Grandpa's Chair. |

7. How the Cube can be Divided.—"If I took an orange and cut it exactly in two, and gave you one part, how much would you have?" "I should have a half." "Just as the orange can be divided into halves so can the cube. We will divide the cube from right to left (No. 2). How many

halves are there?" "There are two." "What do two halves make?" "They make a whole one." "What other things can be divided into halves?" "A loaf, an apple, a lemon, etc." "Now we will join the two halves together, and cut the cube in another way; we can divide it from back to front (No. 3), and again there are two halves exactly alike, and the two halves put together make a whole cube. In what other way can I divide the cube?" "From top to bottom (No. 4)." "So you see that we can halve the cube in three different ways. Now we will put the two halves together again. Suppose I wanted to divide an orange, so that four little children could each have a piece, the halves would not be sufficient, for there are only two. What should I do then?" "You would cut each half in two." "And what would you call the four parts?" "We should call them quarters." "Can we divide the cube into quarters?" "Yes." "First we will get the two halves (No. 2), then we will divide each half into two equal parts, and put one in each corner of the table. How many quarters make a half? How many quarters make a whole one?" When the children are older they may learn eighths; the above lays the foundation for vulgar fractions.

8. Building.—The cubes forming the larger cube should be named just as the corners of the table have been named, thus (see Fig. 12): the front right cube (1), the front left cube (2), the back right cube (3), and the back left cube (4), so that the children will be able to take any cube named. The cube should always be taken out of the box, as an undivided whole, in order to give the idea of completeness.

No. 5. A Low Wall.—Teacher says, "Take your front right cube and place it in the front right square on your table. (Now show your left hand.) Take the front left *cube with left hand* and place it in the next square. (Show

your right hand.) Take the back right cube with right hand and place it on a line with the other. (Show left hand.) Take the back left cube and put it next the other. How many cubes have we taken now?" "We have taken four." "How much of the whole cube have we taken?" "We have taken half." "How much is left?" "Half is left." "Which half have we taken?" "We have taken the top half." "Which half is left?" "The bottom half is left." "Take the cubes that are left, in the same order as the four top cubes were taken, and place them in a line (see No. 5). We have now made a low wall. What is a wall for?"

"Where have you seen a wall?" "Round a field, garden, etc." "What is a wall made of?" "It is made of bricks or stones." "What might we have instead of a wall?" "We might have a fence." "What would that be made of?" "Of wood, or we might have iron railings."

No. 6.—If we take half the low wall and place it on the other half, we shall have a high wall.

No. 7. **Chimneys.**—Divide the cube into four quarters and put one in each corner of the table; these represent four little chimneys.

No. 8.—Take the chimney from back right corner, and put it on the top of chimney in front right corner, and the left side ditto, and we shall have two tall chimneys.

No. 9. **A Street.**—Let the chimneys lie down with a space between, and we have a street.

No. 10. **Grandpapa's Chair.**—Suppose the cube to be built up again in centre of table. Take the front right cube and place it on the back right cube. Take the front left cube with left hand and place it on back left cube, and we have a chair; we will call this Grandpapa's Chair.

No. 11.—If we divide Grandpa's Chair (No. 10) into two chairs, there will be one for Father and one for Mother.

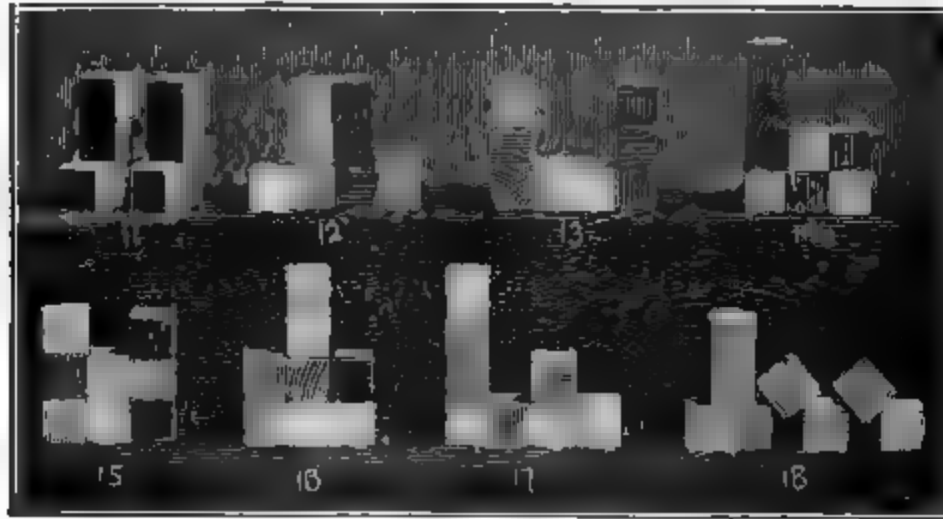


FIG. 14.

- | | |
|--------------------|--------------------|
| 11. Two Chairs. | 15. Castle. |
| 12. Station House. | 16. Town Hall. |
| 13. Two Towers. | 17. Engine. |
| 14. Church. | 18. Ruined Castle. |

No. 12.—By placing the two chairs back to back we get a Station House.

No. 13.—Turning them with the seats together we make two Towers.

No. 14.—A Church is made from the Towers by moving three cubes.

No. 15.—From the Church we get a Castle by moving only one cube.

No. 16.—The two uppermost cubes are next placed in the centre, and we have a Town Hall; from this we get the Engine (No. 17), then the Ruined Castle (No. 18).

Fig. 18, No. 24. Let each alternate child make a table (the whole cube), and place it between the Father's and Mother's chairs made by its neighbour. The children learn thus that combined labour produces better results, and a spirit of kindli-

ness is fostered. Then will follow a conversation about the chairs and tables. Who made them? What other kinds of



FIG. 15.

19. City Clock.

20. Bridge.

21. Steps.

22. Double Steps.

23. Throne.

24. Table and Chairs.

chairs are there, and what shape of table might we have besides a square table?

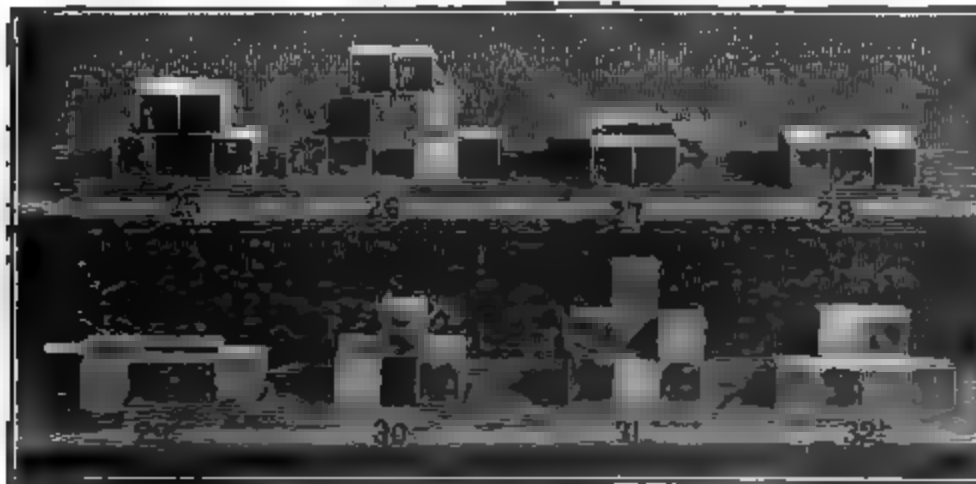


FIG. 16.

25. Shed.

26. Arch.

27. Fold.

28. Well.

29. Trough.

30. Tunnel.

31. Armchair.

32. Garden Seat.

The Shed (No. 25) has four cubes for the roof. The Fold (No. 27) has two cubes on each side. The Tunnel (No. 30) has three cubes on each side, and two for the roof. The construction of the rest of the objects in Fig. 16 is apparent.

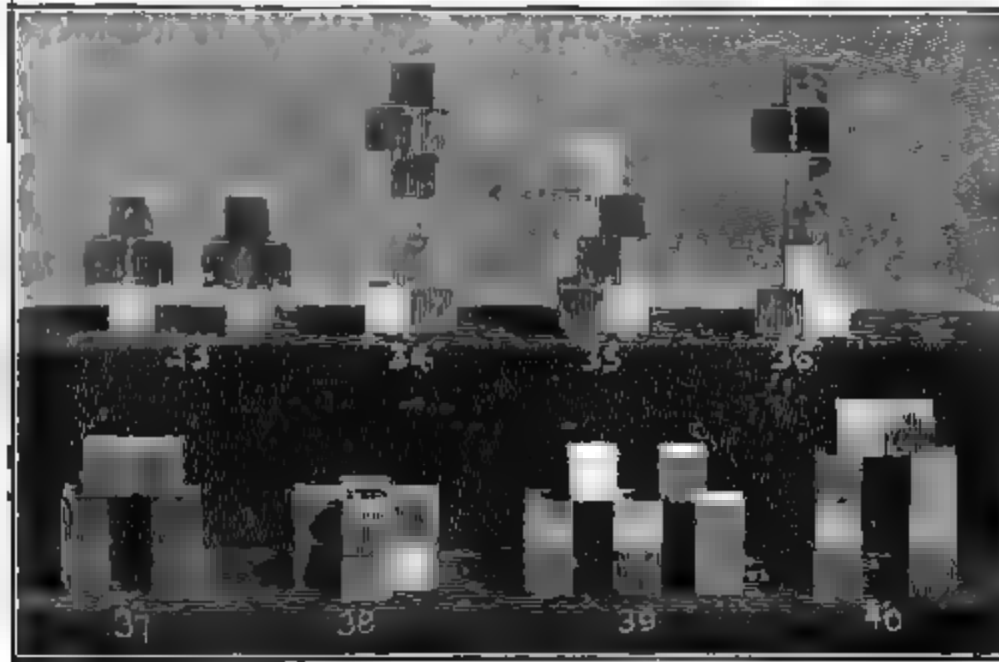


FIG. 17.

- | | |
|-------------------------------------|-----------------|
| 33. Two Crosses. | 37. Sentry Box. |
| 34. Cross. | 38. Draw Well. |
| 35. Maltese Cross on Ped-
estal. | 39. City Gate. |
| 36. Sign Post. | 40. Gate. |

In making the Crosses (Nos. 33 to 35) the three upper cubes must, in each case, be placed as they are shown here, before being lifted to their position on the Cross. The three uppermost cubes of the Sign Post (No. 36) are first put in position like those of the Cross, and then the two are turned outwards. The back of the Sentry Box (No. 37) is formed by two cubes standing on the top of each other.

In a building lesson it is well to remember the following:—

(a) All the cubes should be used, and the children should never be allowed to destroy the object, but should always form some other figure (or the cube) from it.

(b) Sometimes one child might build and the rest imitate, but, as a rule, the teacher should be the architect.

(c) Do not alter a child's mistake if it can possibly make the correction itself.

(d) When the children can build a number of forms fairly well, the teacher may give different objects to be built at the same time, *e.g.*, one group may build a trough (No. 29), another group might combine to make a field, a third may make a well (No. 38), and so on, and then the teacher may relate a story in which each object shall be named.

Story introducing field, wall, gate, well, trough, fold (No. 27), and shed (No. 25):—

“Two little children went out to play in a field. There was a wall all round the field, and a gate (No. 40). In one corner of the field there was a well—a deep, cool well, with sweet, clear water. But the cows and sheep could not reach the water, so what did the kind farmer do? He made a trough close by the well, and drew the water up with a pail, fastened to a long rope, and poured it in the trough, so that the sheep and cows might have water to drink. Then at night the sheep were safely shut up in the fold, and the cows went into a shed. The Spring-time had come, so there were pretty little lambs in the field, jumping, and frisking, and dancing about, and one, that was very fond of fun, the farmer called Frisky, for it was never tired of play. One day Frisky was playing by the well, and, sad to say, he tumbled in. The farmer was not far away, so the two children ran to tell him what had happened, and Frisky's mother soon called him with her ‘Baa, baa’ to come and get Frisky out.” (The children will be delighted when their respective objects are named.)

The following verses introduce other objects:—

Some have made a nice, low Wall (No. 5),
Some have built a Chimney tall (No. 8),
There's a chair for Grandpapa (No. 10),
Two for Father and Mamma (No. 11),
Here's a Tunnel, long and dark (No. 30),
How the Engine whistles, hark ! (No. 17)
Quickly goes the Train so fast,
Till the Station House is past (No. 12).

If any object is carelessly made, it should be omitted from the teacher's story, and another put in its place. Let the child understand why such object is unnoticed.

If the children are allowed (in putting the cubes away) to place them in the box, the following rhymes may be used :—

1. All our work is over,
Bricks are put away ;
(1) One goes in the corner,
(2) Two beside I lay.
2. (3) Three is snug and cosy ;
Just one corner more,
(4) This nice cube will fill it,
Then I've put in four.
3. Now another layer,
Five goes in, then six,
Seven and eight will follow,
Gone are all my bricks.
4. Good-bye, pretty playthings,
In your box please stay,
Till again we want you
With us all to play.

Instructions.—Let the empty box stand in front of the cube. (1) Take front right cube, put it carefully in front right corner of the box. (2) With left hand take front left cube, and put it next the first in front left corner. (3) Take back right cube, put it in top right corner of the box. (4) With left hand take back left cube, and place in remaining corner.

The teacher should see that these four have been put in properly before proceeding with the rest, which are taken in the same order as the first four.

Many teachers find it better to let the children build up the cube, and put the box over it, and for those who prefer this method, the following rhymes are appropriate :—

- (1) Lift your empty box up so,
- (2) On the cube now it must go,
Hold it very straight, and then
Cover up your cube again.

Before proceeding, see that every child has managed the above.

- (3) Ready all our left hands are,
- (4) Slides the box so gently there,
- (5) Turn it over, (6) take the lid,
- (7) Put it on as you are bid.

Directions.—(1) Box held in right hand. (2) Put it over the cube. (3) Left hand out, palm upwards, tips of fingers resting under desk. (4) Slide box forward with right hand, until it rests on the flat palm of the left hand. (5) Box on table, right side up. (6) Take lid in right hand. (7) Slide lid on box.

N.B.—Some teachers prefer to dispense with the lids altogether.

Building with Four Bricks.—For very little children, it will be sufficient at first to give four bricks only. With these they can make a wall, high or low; two chimneys, a tall chimney, a street, a chair, a bridge, a well, and a train.

Co-operation.—Sometimes the children might combine to make objects on a large scale. Take those mentioned in the story, *e.g.* A number of children would use their cubes to make a wall round the field, which might be built on the floor, or on a large table. Then one child would build the gate, another the trough, another the well, and so on, until

all the objects are represented, and then the story would follow. The children will see how much more can be accomplished by the many than by the one, and they will thus learn not to attach too much importance to their own unaided work.

9. Forms of Beauty.—Besides being used for the building of objects, Gift III. can also be used for laying symmetrical forms, which train the eye, and develop the sense of beauty. The hand is also trained to move the cubes quickly and correctly, and the forms laid are a preparation for drawing on the chequered slates, just as the laying of sticks is a preparation for writing.

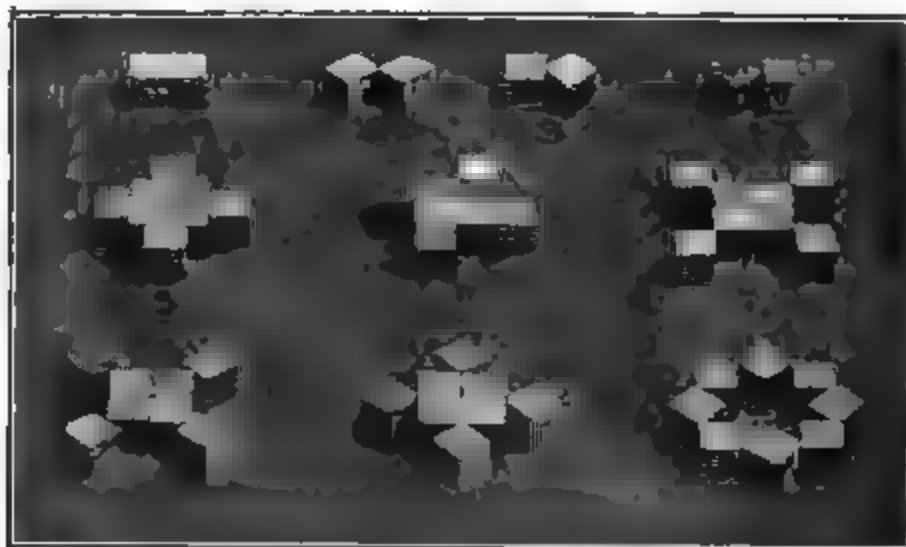


FIG. 18. Forms of Beauty.

Before commencing, take two cubes and let them be placed in different positions with regard to each other. First, side to side (No. 1), second, corner to corner (No. 2), third, side to corner (No. 3), fourth, corner to side (No. 4).

Forms of Beauty with Four Cubes as Centre.—No. 5.—Take four cubes for the centre, and place the other four round them.

No. 6.—Move the four outside cubes half a cube's length to the right.

No. 7.—Then move them a whole cube's length to the corner.

No. 8.—Now the sides are turned to touch the corner.

No. 9.—The corners are turned to the centre of each side of the square.

No. 10.—The four centre cubes are drawn out.

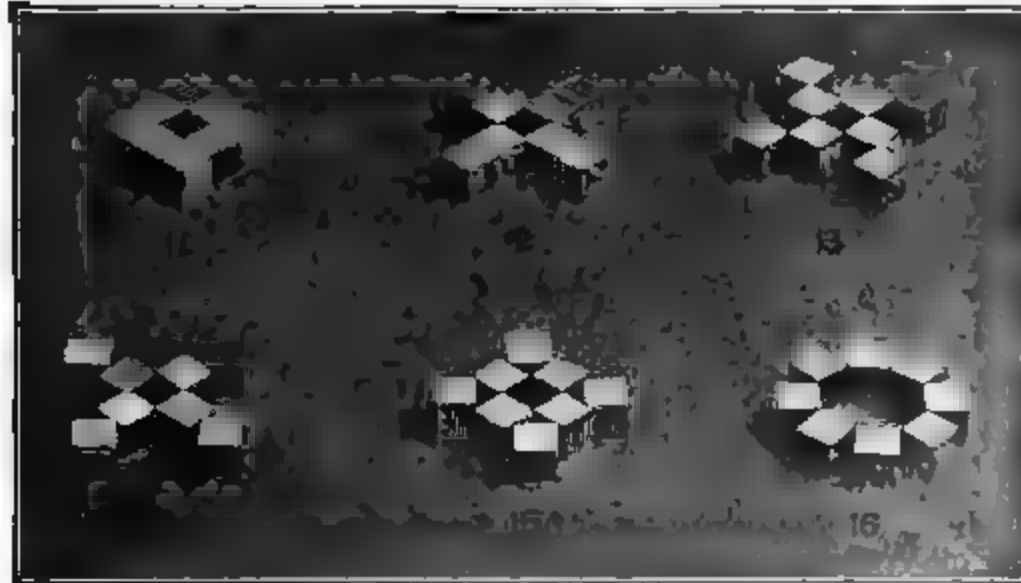


FIG. 19.

Forms of Beauty with Hollow Square as Centre.

—Starting with No. 11, the corner cubes are drawn out and placed alongside the other four in No. 12. Then they are moved to the right, and stand corner to corner, No. 13. In No. 14 they are placed corner to side. In No. 15 they fill up the spaces, and in No. 16 the four centre cubes are drawn out.

Such pretty figures we can lay
When with our box of cubes we play;
Each cube just in its place we see,
Each face and edge exact must be.

Fig. 20.—The hollow square is again formed with one of the sides turned to us instead of the corner. In No. 17 the corner cubes are turned so that their sides face the centre. In No. 18 they are moved to form the cross, and in No. 19 we

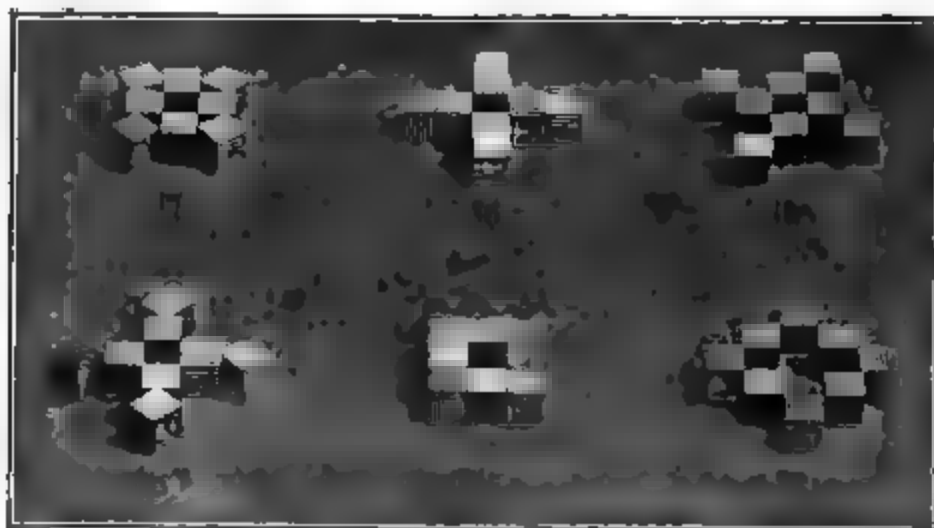


FIG. 20.

see them corner to corner. In No. 20 they stand corner to side; No. 21 takes us back to the foundation form; the middle cube on each side is drawn out to make No. 22.

The children should be encouraged to find out new figures for themselves; they will have no difficulty in doing this if they have been taught Fröbel's "law of opposites," for even a very young child soon learns to do the opposite of what it did before.

Now try, dear children, as you can,
To follow out this pretty plan;
More Forms of Beauty you may make,
If only you the pains will take.



FIG. 21.

Fig. 21, Nos. 23 to 28 show Forms of Beauty made in the oblong. Nos. 29 and 30 are borders.

These forms might be multiplied indefinitely, and are only given as examples of what can be done.

10. Number.—It has already been shown how Gift III. may be used as a preparation for the learning of fractions, and it is equally useful in teaching analysis of number. One example shall suffice: Divide the cube in halves. How many cubes in each? Four. Four and four are eight. Divide the fours in halves. How many twos make eight? The children will see that four twos make eight. Put three twos on one side the table, and one on the other. Six and two are eight, and so on, until the analysis of eight is completed.

CHAPTER VI.

GIFT IV.

1. What it is.—Gift IV. is a cube, divided into oblong bricks. The cube is the same size as that of Gift III., but instead of being divided in every direction it is cut *once* vertically and *three* times horizontally, to make eight equal parts.

This Gift, like the third, satisfies the child's desire to investigate and construct, and it can be used to make objects more numerous and beautiful than can Gift III. It is a source of endless delight to the children, and the following incident shows how lasting is the pleasure thus produced. A young lady of twenty-five said that she remembered building with Gift IV. when she was five years old, and she recalled distinctly how that, on one occasion, the class made the bricks to represent two rows of soldiers, about which the teacher introduced a pleasant conversation, and the pupil remembers it with pleasure after twenty years. This proves how indelible are the impressions made in early childhood.

2. How Gift IV. may be used.—The different parts of the table which were learnt in Gift III. should be revised before building with Gift IV.

The instructions for passing and opening the boxes given in the preceding chapter are equally applicable here, and the same verses may be said or sung in passing the boxes, substituting the word "bricks" for "cubes".

Comparison with Gift III.—When the boxes have been carefully raised, so that the whole cube is left undisturbed, the teacher will say, “Now, what do you see?” “We see a cube.” Let the cube stand so that the ends of the bricks face the children (No. 1, Fig. 22). “Is this like the cube of Gift III.?” “No.” “Why not?” “Gift III. was divided into little cubes, this cube is divided into bricks.” “That is because it is cut differently” (show Gift III.). “You remember how we divided Gift III. We cut it in halves from right to left. Can you divide Gift IV. from right to left?” “Yes, it can be divided from right to left.” “Then we divided Gift III. from back to front; can we do that with Gift IV.?” “No, it cannot be divided from back to front.” “Next we divided Gift III. from top to bottom; can we do that with Gift IV.?” “Yes, it is cut into four slices from top to bottom.” “Now we see the difference between Gift III. and Gift IV. Gift III. is divided from right to left, from back to front, and from top to bottom” (show all these divisions with the cubes), “but Gift IV. is only divided from right to left, and from top to bottom; but it is divided three times from top to bottom. Now take one brick from Gift IV., and a small cube from Gift III. The cube’s faces are all of the same size, but how are they in the brick? The brick has two large faces—so large that it takes two cubes to cover one of them. Then it has two little faces—so little that it takes two of them to cover one face of the cube; the other two faces are of middle size, it would take two of them to cover the large face, but they are twice as large as the little faces are. It reminds us of the Three Bears, one was big, one was middle size, and the other was a tiny bear.” Let the children point to the two large faces, to the two little faces, and to the two middle-sized faces. How many faces in all? Six, just the same number as the cube had.

Two faces large belong to me,
 And then two little ones you see,
 Two more I have, a size between,
 Which at the sides are always seen.

“We will put the brick on one of its largest faces. What is it doing now?” “It is lying down.” “Now we will put it on its smallest face. What is it doing now?” “It is standing up.” “Now we will put it on its middle-sized face, and we will say that it is sitting down.” Let the children put the brick in the different positions mentioned, as they repeat the following verse:—

I can stand, or I can sit,
 Or can lie, if you see fit
 Sit, or stand, or lie quite flat
 Pray what do you think of that?

All the faces of the brick, whether large or small, or middle size, have two long sides and two short sides, and this shape is called oblong.

“What other things are oblong in shape?” “The door, the window, the table, etc.” Let the children mention all the oblong shapes they can think of. Gift IV. can be divided into halves and quarters, and may be used for teaching number just as Gift III. was.

Revise also the conversation about what the cube is made of, who made it, etc. All that has been written about Gift III. should be read and applied to this Gift.

Suppose each child to have the blocks of Gift IV. in front of him. No. 1, Fig. 22.

No. 2.—Take the two topmost bricks and place them in the front right corner with the smallest faces towards you. How many squares do they cover? Take the next two bricks and place them with their middle-sized faces towards you.

This is a Board, and we will make another just like it, in *the front left corner*.

No. 3.—These again divided give us four small Boards.

No. 4.—The bricks placed on end, side by side, make a Wall which will lead to an interesting conversation.

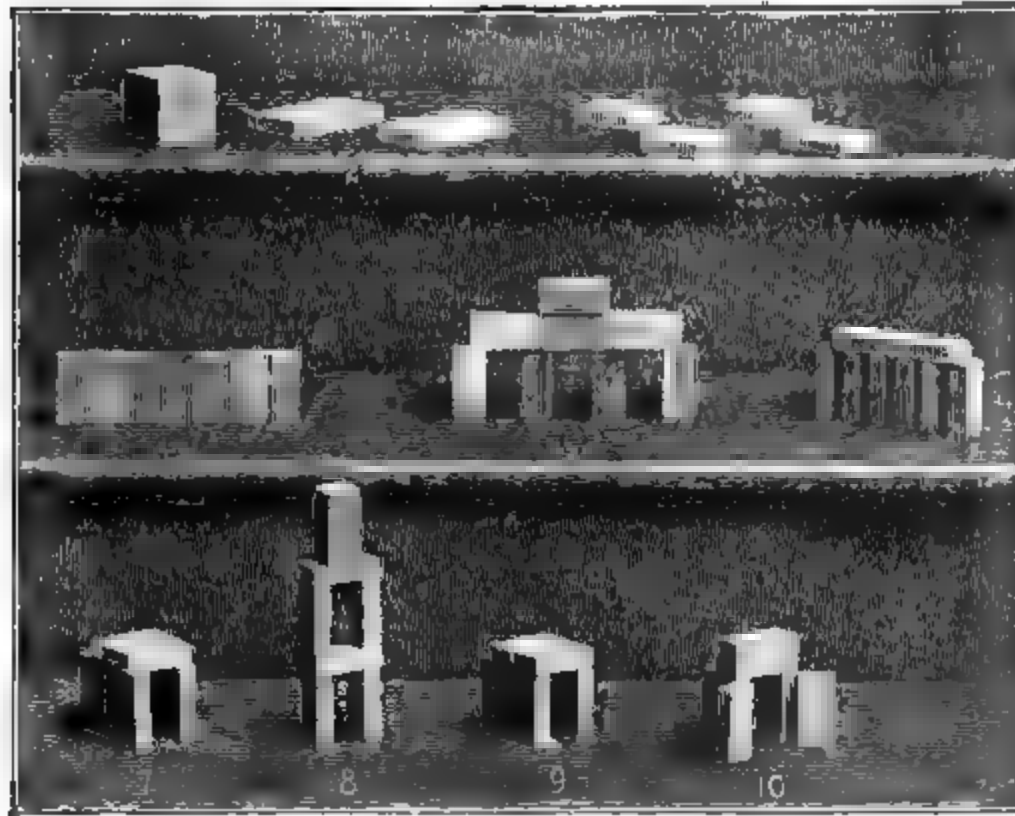


FIG. 22.

- | | |
|-----------------|---------------------------------|
| 1. Cube. | 6. Viaduct. |
| 2. Two Boards. | 7. Passage. |
| 3. Four Boards. | 8. Belfry. |
| 4. Wall. | 9. Garden House. |
| 5. City Gate. | 10. Garden House with
Doors. |

No. 5.—The City Gate is easily made from the Wall.

No. 7.—The Passage has three bricks on each side, two at the back, and two on the top.

No. 10.—The open Garden House has two at the back, one at each side, and two on the top of each other for the roof; the remaining two form the doors.

Fig. 23, No. 11.—The Deep Shaft has a broad face of one block, and a long narrow face of another on each side. Above these the bricks are arranged in the same way, but the broad side rests on the narrow side of the brick below.

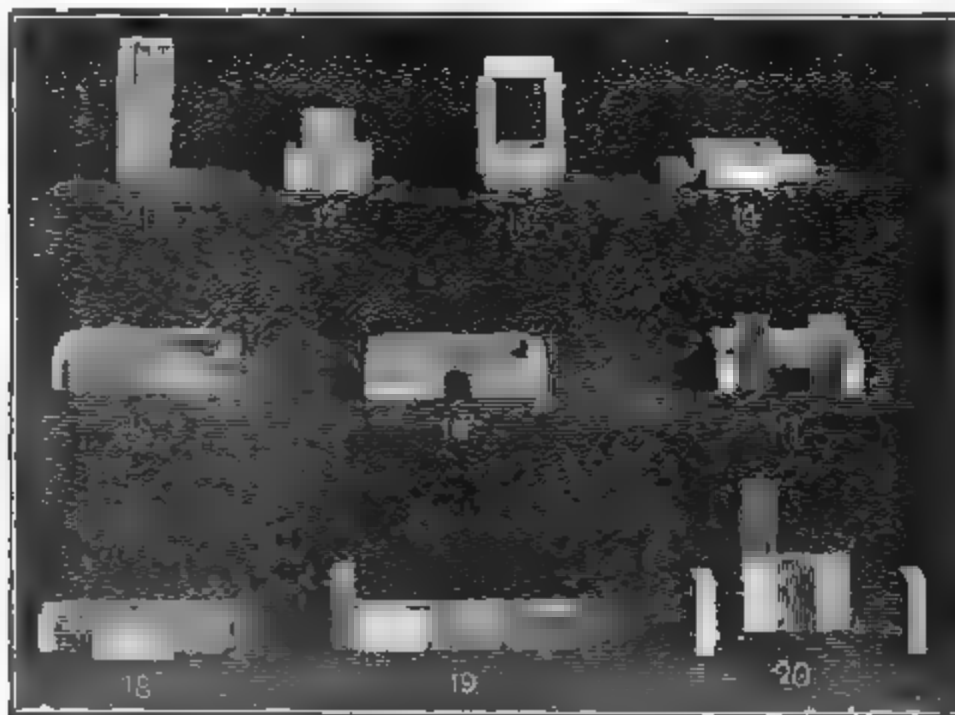


FIG. 23.

- | | |
|-------------------|---------------------------|
| 11. Deep Shaft. | 16. Field with Gate. |
| 12. Shaft. | 17. Garden. |
| 13. Covered Well. | 18. Trough. |
| 14. Fountain. | 19. Shooting-box. |
| 15. Closed Field. | 20. Church and Buildings. |

No. 12.—In the next Shaft the four uppermost bricks are placed round the lower four of No. 11.

No. 13.—To make the Well take the four centre bricks out of No. 12 and use them for the cover and the step.

No. 14.—The Fountain has the same foundation form as No. 13, with a brick lying on its broad face at each side.

Fig. 24, No. 22. The Covered Way has two bricks on each side, and four for roof.

No. 23.—In making the Piano the two blocks which stand

on the key-board must be put in position before the latter is lifted to its place.

No. 24.—The Double Settee has four bricks laid on their largest faces for foundation, and the two which form the back are placed in the middle of the foundation so that there is a seat on each side.

No. 25.—The two bricks which form the back of the Sofa rest on the two broad faces which form the seat.

No. 26.—The Garden Seat has the whole width of the brick

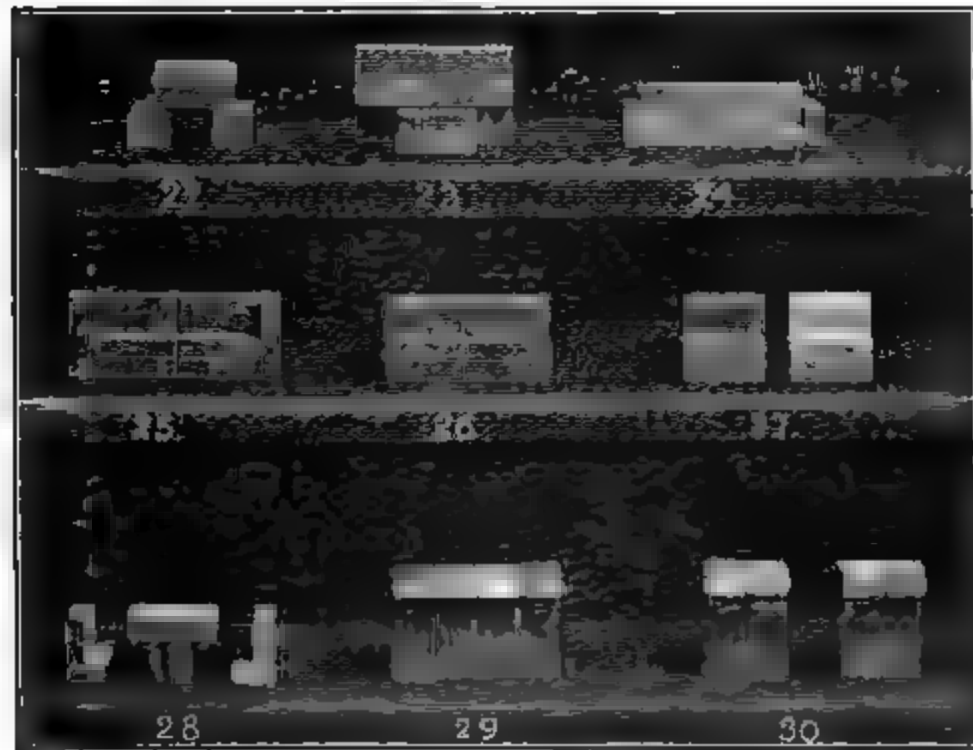


FIG. 24.

22. Covered Way.
23. Piano and Stool.
24. Double Settee.
25. Sofa.
26. Garden Seat.

27. Garden Seats.
28. Table and Seats.
29. Rustic Table.
30. Two Tables.

for the seat. The two bricks which form the back rest on two below, placed in exactly the same position as the two upper ones.

No. 27.—The Two Seats are obtained by dividing No. 26. The rest of the figures show the position of the bricks *sufficiently clearly*.

Fig. 25, No. 37.—The Long Tunnel has two bricks for each side, and four for cover.

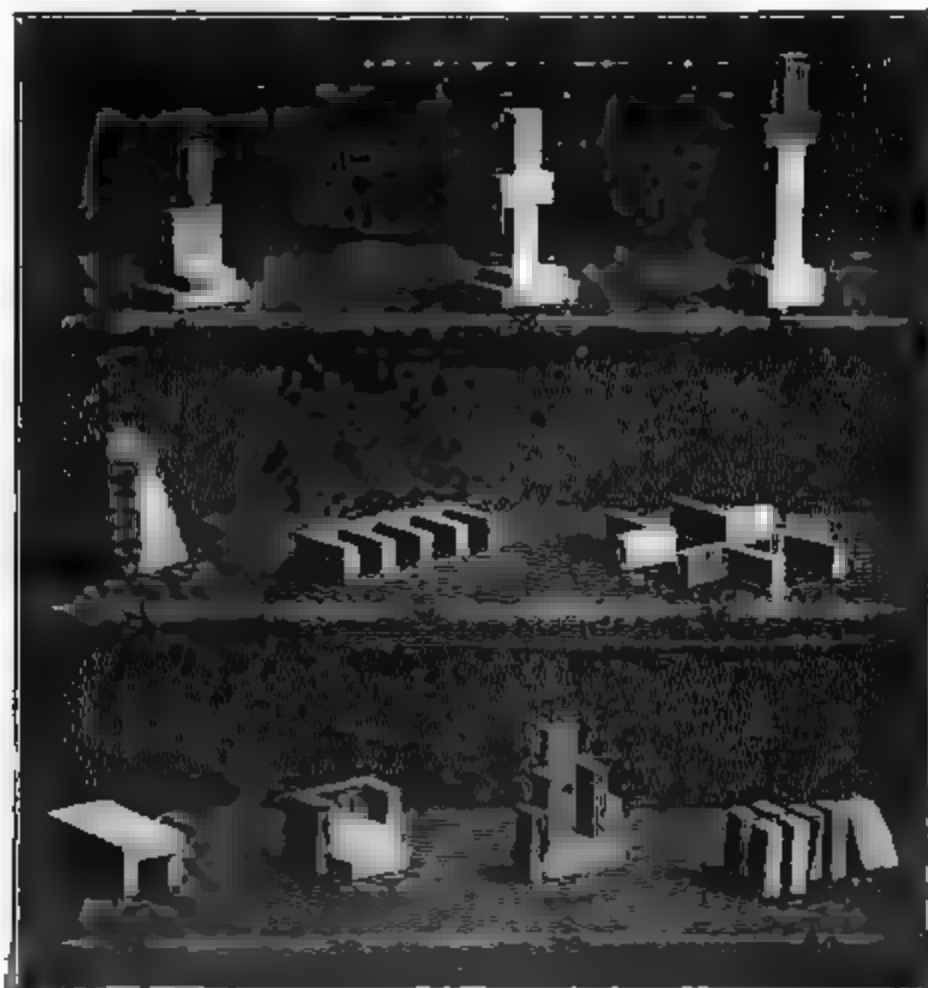


FIG. 25.

- | | |
|---------------------|------------------------|
| 31. Monument. | 36. Cross Roads |
| 32. Cross. | 37. Long Tunnel. |
| 33. Table Cross. | 38. Chair. |
| 34. Winding Stairs. | 39. Throne. |
| 35. Stalls. | 40. Continuous Motion. |

No. 38.—The Chair has three bricks for the back, and two for the seat.

No. 39.—The back of the Throne is formed by two bricks, one on the top of the other

No. 40.—Shows continuous motion, and teaches the

children that if an impetus be given to an object forming one of a line, the impetus is conveyed from one to the other.

GIFT IV.—FORMS OF BEAUTY.



FIG. 26.

These are numerous and beautiful. A very few are given as examples, showing some of the centres from which to work, but many more forms can be made from these centres. It will be seen that one figure is developed from another.

No. 2 is obtained by pushing each of the four bricks half its length outwards.

In No. 3 it is pushed quite out.

In No. 4 the blocks are placed end to end.

In No. 5 side to end.

In No. 6 end to side.

Fig. 27 (see next page) shows two centres, from each of which the children will construct numbers of figures without any aid.

Fig. 28 shows a larger space enclosed in centre.

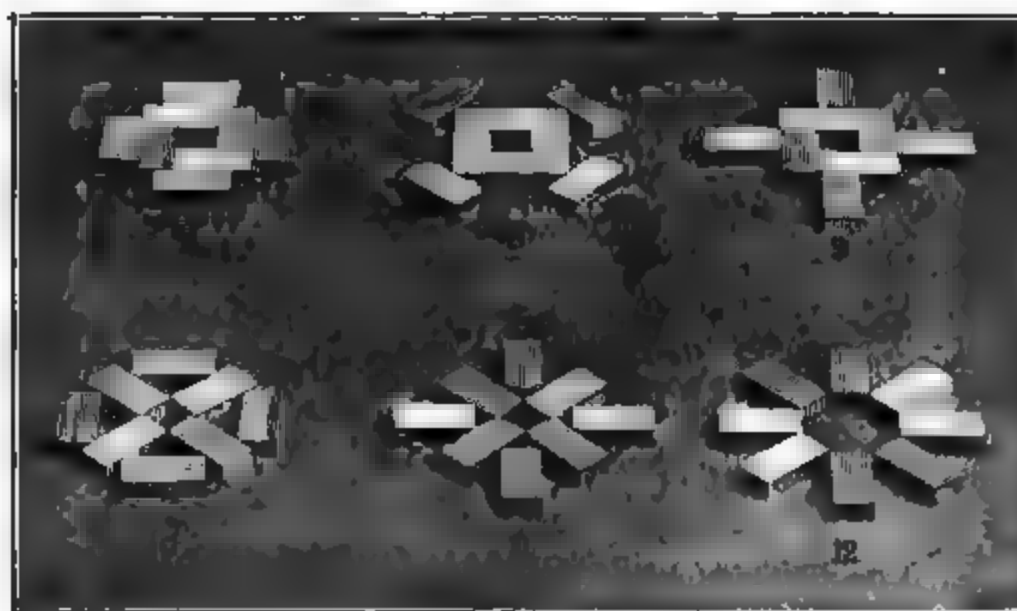


FIG. 27.

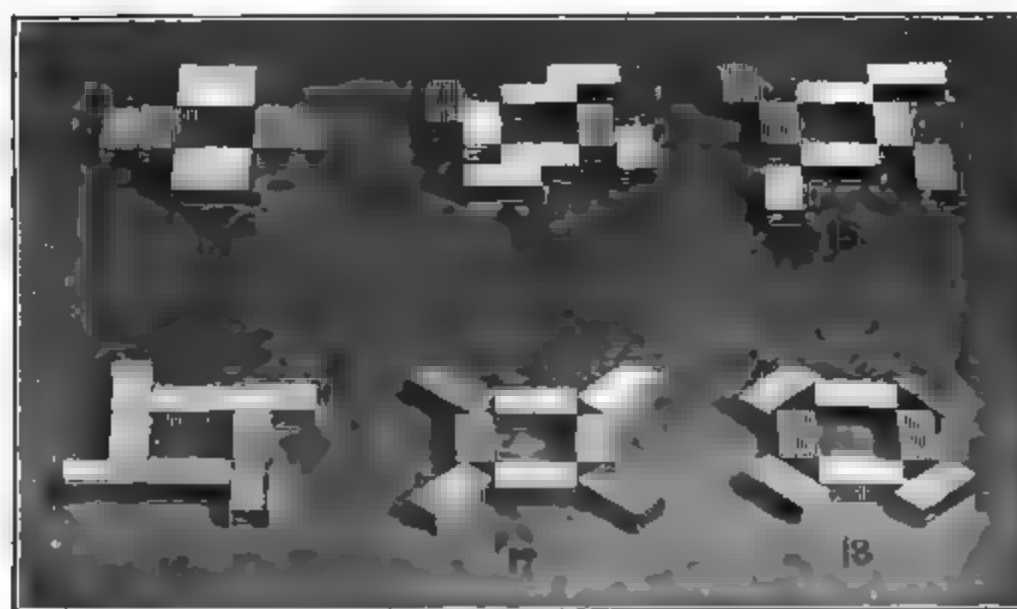


FIG. 28.

GIFTS III. and IV. combined.

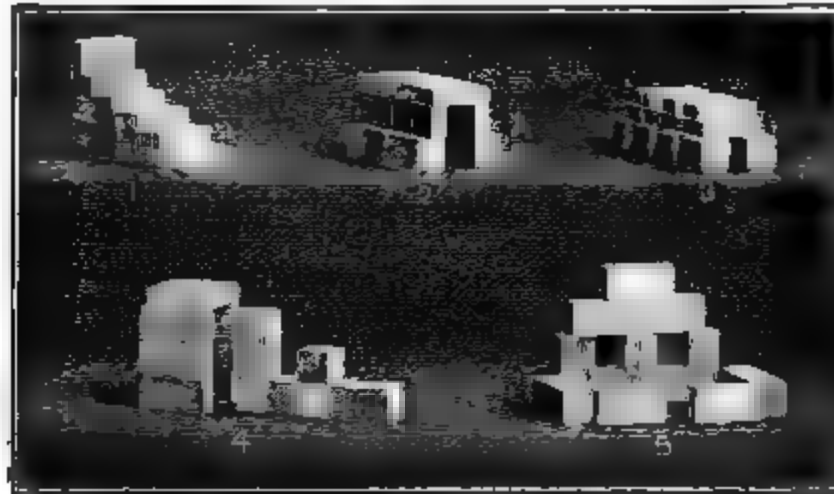


FIG. 29.

- | | |
|----------------------|-----------------------|
| 1. Staircase. | 4. Engine and Tunnel. |
| 2. Tunnel. | 5. House and Garden. |
| 3. Covered Passages. | |

By using these two Gifts together many beautiful forms can be obtained. A few are shown here.

No. 1.—Staircase. The first step of the staircase is formed by one block of Gift IV., the second step by two blocks and the third by three blocks. The four cubes of Gift III form the fourth step, and the other four rest under the fifth step, which is formed by one brick of Gift IV., while another brick placed on its long narrow side forms the back.

No. 2.—The Tunnel. Four cubes of Gift III. are placed at each side; two blocks of Gift IV. rest on the four cubes at each side, and four are used to cover.

No. 3.—Here the cubes of Gift III. are placed a little distance apart and the bricks of Gift IV. form the roof.

No. 4.—Engine entering Tunnel. The Tunnel has three blocks on each side, and two for cover.

No. 5.—House and Garden. The cubes of Gift III. are used for the Garden, three on each side, and the remaining two are below the windows.

CHAPTER VII.

GIFT V.

1. What it is.—Gift V. is much more complex than the preceding Gifts, and is therefore more suitable for older children. It can be used as a preparation for more advanced studies, to which it is a valuable stepping-stone or introduction, as will be shown later.

Gift V. consists of a three-inch cube, divided twice in each direction, so that there are in all twenty-seven cubes. Three of these are divided diagonally into halves, and three others are divided twice diagonally into quarters. Up to this time the child has had Gifts which introduced it only to the right angle enclosed between the vertical and horizontal lines, which it has called standing-up and lying-down lines. It will now learn the intermediate, or slanting line, which connects the two opposites (vertical and horizontal) and illustrates Fröbel's law of reconciliation of opposites. The acute or sharp angle is seen in this Gift, where it forms an exact half of the right angle.

2. How Gift V. may be used.—For passing and opening the boxes see the instructions given in Gift III.

When the box has been lifted off, and put in its place, the teacher asks: "What is this?" "It is a cube." "How is it different from the other cubes you have seen?" "It is larger." "Which Gift is it most like?" "It is most like Gift III."

3. Comparison with Gift III.—(Let each child have Gift III. as well as Gift V.) "Why is this Gift like Gift

III.?" "Because it is divided into cubes." "But it has more cubes than Gift III., for it is larger, and is cut into more parts. Gift III. is cut from right to left, how many times?" "Only once into two equal parts." "Now look at Gift V. How many times is it cut from right to left?" "It is cut twice." "Into how many equal parts?" "Into three equal parts." In the same way, it is cut twice from back to front, into three equal parts; and twice from top to bottom into three equal parts. Let the children now divide the cube in the three ways mentioned, and they will see that there are nine whole cubes in each division, in three rows of three cubes each.

"In what other way is this Gift different from Gift III.?" "Some of the cubes are divided."

Let the children take a cube which has been divided into halves. Take one of the half cubes and tell me about its faces. Two of them are square, and one is oblong. The other two faces are a new shape. "How many edges are round each face?" "Only three." This is called a triangle.

Now take a cube that has been divided into four parts, and take one of the parts in your hand. It has one square face, two oblong faces, and two triangular faces. How many quarters make a whole one? How many make a half? And how many halves make a whole one?

4. Building with Gift V.—With the previous Gifts the child has been able to build simple objects, such as a chair, table, etc.

The increase of materials in this Gift affords scope for larger objects, and helps accordingly to widen the child's ideas. It can now build the schoolhouse, the factory, the mill, etc., and by interesting conversation about these places, the teacher may cultivate the child's sympathy with those who work there, and so its love to humanity is broadened and deepened; and not alone is the mind of the child trained,

but the heart is developed, and kindly, noble thought is encouraged and strengthened.



FIG. 30.

- | | |
|----------------------|------------------|
| 1. The Cube. | 4. Chair. |
| 2. A Flower Stand. | 5. Three Chairs. |
| 3. Three Staircases. | 6. Armchair. |

No. 1.—Suppose the cube to stand in the centre of the table. It may represent a box or a table.

No. 2. —Take the three front cubes and place them upon the three back cubes. “What is this?” “It is a Flower Stand.” “What might we have on the Flower Stand?” “We might have plants.” “What plants could we have?”

No. 3.—Now divide the Flower Stand into three parts, and we have Three narrow Staircases. A conversation should follow.

No. 4.—Join the Staircases together again to make the Flower Stand. Take the three middle cubes and place them on the three back ones. “What have we now?” “We have a Chair.” Divide it into Three Chairs (No. 5).

No. 6. Make the large Chair again, take the three top back cubes (which should be the three cubes divided into

quarters), and put two quarters together to form an oblong block; two of these blocks are used for each arm, and two for the footstool.

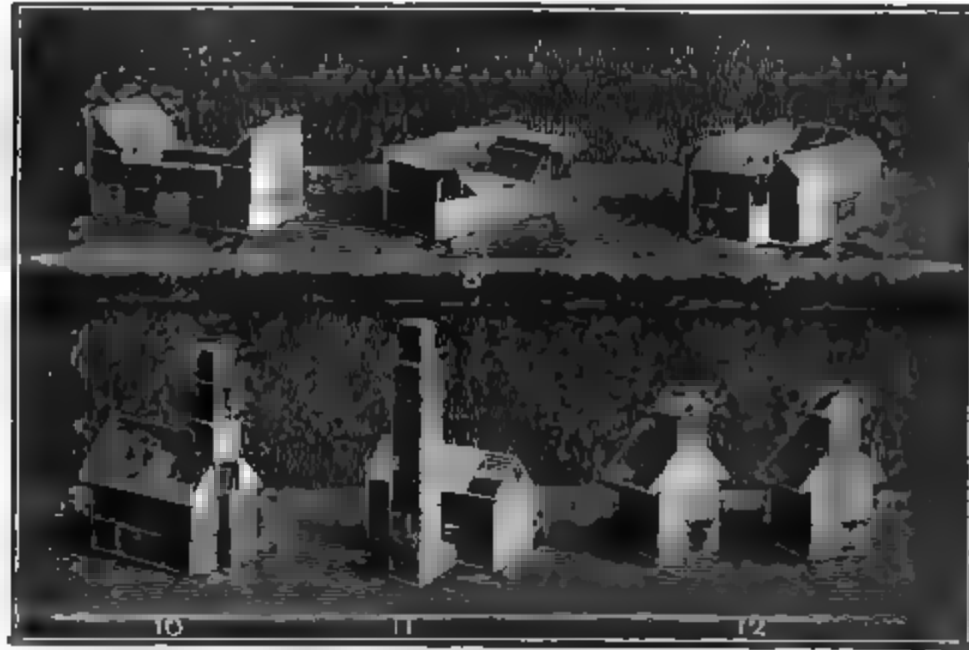


FIG. 31.

7. Bed.

8. Sofa.

9. Trough.

10. Church.

11. Mill.

12. Swiss Cottages.

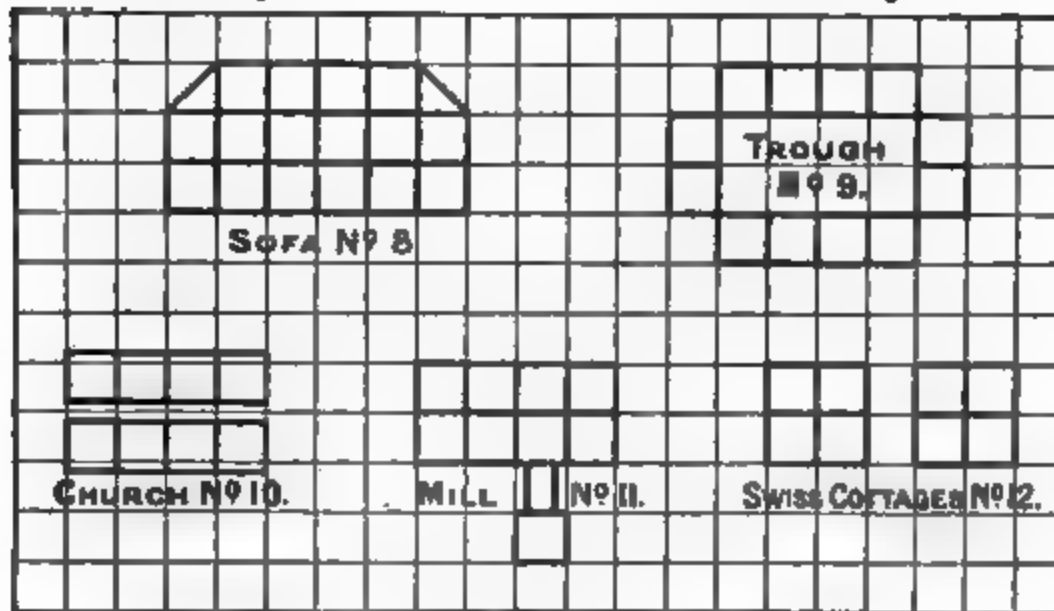


FIG. 32. Ground Forms.

No. 7. The Bed.—Fifteen whole cubes are used for the foundation ; three cubes more are placed at the head, and three cubes at the foot, and on these rest the half cubes. The sides are formed by six oblong blocks, each of which is made by placing two quarters together.

No. 8. The Sofa.—The ground form shows the foundation, and on this are placed four whole cubes for the back, with a half cube at each side ; two whole cubes are used for each arm, and two quarter cubes for each bolster.

No. 9. The Trough.—The two walls of the trough have eight cubes each, and the two end ones four cubes each. The twelve quarter cubes are placed on the walls of the trough, broad face downwards.

No. 10. The Church.—Sixteen whole cubes are required for the walls of the church, the remaining cubes being used to make the roof and steeple. Four half cubes are placed on each side of the four whole cubes which form the centre of the roof, and three quarter cubes rest face downwards on three of the whole cubes to form the point of the roof. The steeple has two whole cubes and four quarter cubes, the latter being placed two together to form oblong blocks ; one quarter cube is left, which may be used to finish the steeple.

No. 11. The Mill.—The roof of the Mill is made of eight half cubes. A block formed of two quarter cubes connects the mill and the chimney, and the latter is finished by a similar small block.

No. 12. Swiss Cottages.—The roofs are similar to that of the church ; two whole cubes in the centre, two halves on each side, a quarter cube face downwards on one of the roof cubes, and the remaining quarter on the chimney.

5. Forms of Beauty.—Any number of these can be made. The following will serve as specimens.

Fig. 33, No. 1, has nine cubes for the centre, with three whole cubes and three halves for each corner piece.

The next five forms are made from each other by moving different pieces as shown in the figures given.

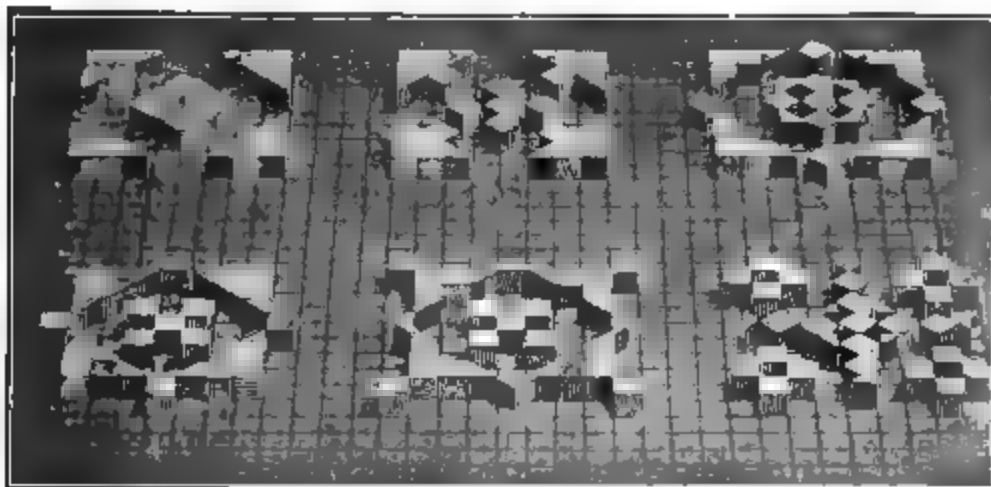


FIG. 33.

Fig. 34.—The first triangular form (No. 7) has nine cubes on each side. The next (No. 8) has eight. Nos. 9 and 10 have

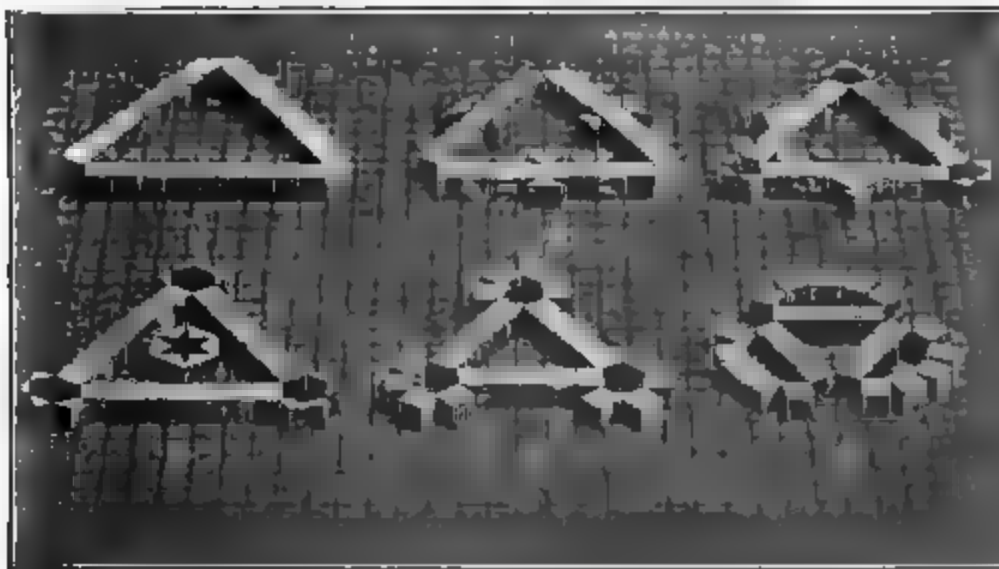


FIG. 34.

seven cubes on each side, No. 11 has five cubes, and No. 12 has four.


6. Number.—Before giving lessons on number with
5






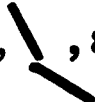
Gift V. it would be well to give each child Gift III., and take halves, quarters, and eighths, for which this Gift is so well adapted; then Gift V. may be given. First divide the cube into thirds from right to left, then from back to front, then from top to bottom; the children will readily see that three thirds make a whole one. Divide each third into three columns. "How many parts have we now?" "We have nine." "These parts are called ninths. How many ninths are there?" "There are nine. And nine ninths make a whole one." "How many ninths in a third? How many in two thirds? How many in three thirds?" We may then add and subtract the ninths, thus:—

Four ninths and three ninths = seven ninths. How many more ninths to make a whole? Or, eight ninths, take two away, how many are left? and so on. The child, of course, demonstrates each step with the cube before it. The cube can also be divided into twenty sevenths, but for young children this is unnecessary.

Another useful exercise is to teach how to add halves and quarters with whole numbers, *e.g.*, $1\frac{1}{2}$ and $1\frac{1}{2}$ are 3. If this were simply written on the blackboard, it would mean nothing to the child, but demonstrated with the cubes and half cubes, it becomes tangible and real, and easy to comprehend. Quarters may be added in the same way, $1\frac{1}{4}$ and $1\frac{1}{4}$ are $2\frac{1}{2}$. This may be illustrated with the whole and quarter cubes, and the examples can be multiplied indefinitely.

Multiplication and division of fractions can also be taught with this Gift.

7. Geometrical Figures.—Before using Gift V. for these figures, it would be well for the children to get a clear idea of the three angles, right, obtuse (or blunt), and acute (or sharp). Draw a standing-up line and a lying-down line, thus, . The angle is the space enclosed by the two lines, and *marked* with X. Whenever this space is enclosed by a

vertical and a horizontal line, we have a right angle. Ask the children what objects have right angles. "The room has four right angles, so has the door." What is generally called the corner of a room is in reality the angle; the corner is the *point* where the two lines meet. The jointed lath is very useful for the purpose of showing the difference between the various angles. Make the right angle with the jointed lath. Now push the standing-up lath a little nearer to the one lying down, , and we have the sharp angle, which is *smaller* than the right angle. It may be a very little smaller, or it may be a great deal smaller than the right angle, but it is still a sharp angle. The same result is obtained if the lying-down line is pushed nearer to the standing-up line, , or if both lines are pushed a little nearer to each other, . Let the children make the right angle, and the different kinds of acute angles, on their slates, and then show with the jointed lath again (or by a black-board sketch), that the blunt angle is *larger* than the right angle. It may be made larger in three ways, just as the sharp angle was made smaller in three ways. We may alter the standing-up line, pushing it further out, , or the lying-down line, , or both lines, , and in each case we have the blunt angle. These should be made on the slate.

"Now take half a cube and try to tell me what angles you see on its triangular face." "It has a standing-up and a lying-down line, so it has one right angle." "Now put the two halves together and you see how many right angles." "Four." "Divide the cube. What have you done to two of the right angles?" "We have cut them in two." "Then what kind of angles do we get?" "They are sharp angles." "Why?" "Because they are less than the right angle." "How much less are they?" "They are half the size." "If we take a quarter cube we get exactly the same kind

of angle, because here, again, the right angle has been cut in two."

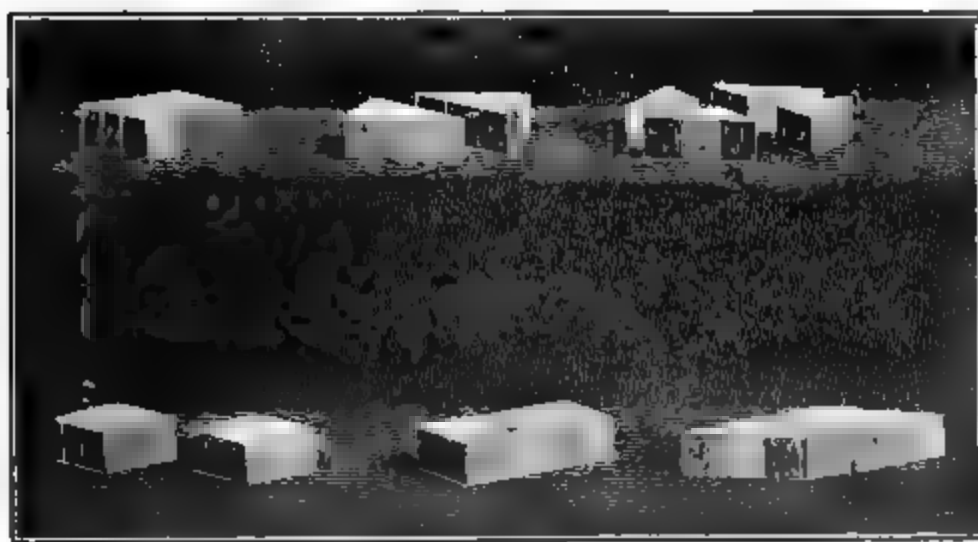


FIG. 35.

- | | |
|--------------------|-----------------------|
| 1. Square. | 4. Two Small Squares. |
| 2. Two Triangles. | 5. Oblong. |
| 3. Four Triangles. | 6. Rhomboid. |

No. 1.—Take the nine cubes which form the top third of Gift V., and arrange them so that there is a divided cube at each corner.

No. 2.—“Divide the square diagonally, what do we get?” “Two triangles.” “How do you know they are triangles?” “Because they have each three angles.” “What kind of an angle is the largest?” “It is a right angle.” “Why?” “Because it is enclosed by a standing-up line and a lying-down line.” “We call this figure a right-angled triangle. What other kinds of angles do you see?” “We see sharp angles.” “How do you know they are sharp?” “Because they are less than a right angle.”

No. 3.—Divide each triangle and we get four smaller triangles; but they are still right-angled triangles.

No. 4.—Put two of these two smaller triangles together, and we have two smaller squares; each contains just the *same number of angles* as did the large square.

No. 5.—Put the two squares together to form an oblong.
 “What kind of angles are these?” “They are all right angles.”

No. 6.—“Take the triangle which forms the left bottom corner, and put it on the right. This is a rhomboid, and now what kind of angles have we?” “Two of them are sharp angles” “Why?” “And two are blunt.” “Why?” “Because they are larger than the right angle.”

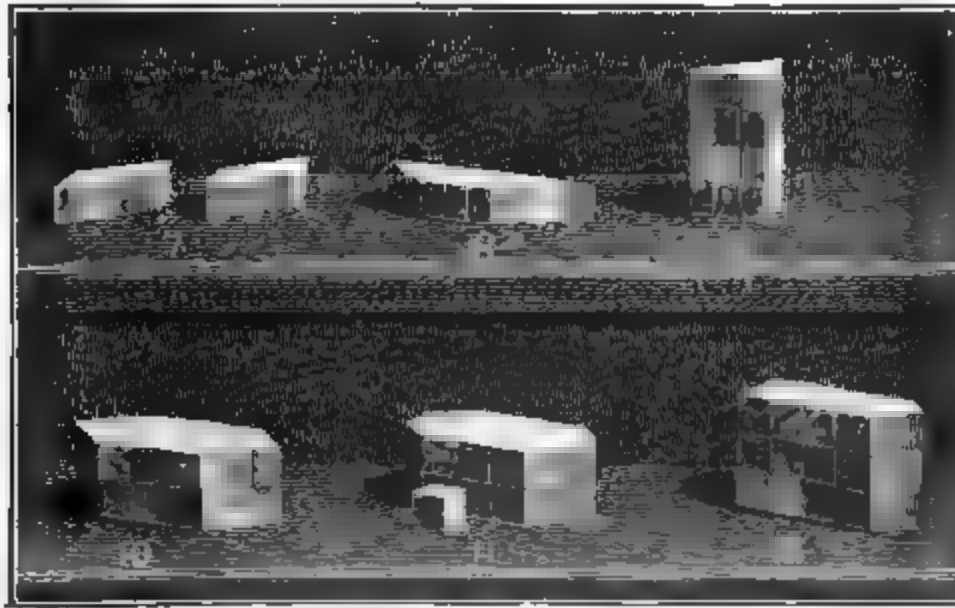


FIG. 36.

- | | |
|-------------------------|----------------------|
| 7. Two Small Rhomboids. | 10. Oblong Hexagon. |
| 8. Trapezoid. | 11. Oblong Octagon. |
| 9. Triangular Prism. | 12. Oblong Pentagon. |

No. 7.—Divide the rhomboid (Fig. 35, No. 6) into two smaller rhomboids (No. 7), and we see again the two blunt and the two sharp angles in each.

No. 8.—Take the triangle from the right, and place it with its broad face upwards like the one at the left, and we have the trapezoid.

No. 9.—Divide into four triangles (Fig. 35, No. 3), place triangles on each other, and we have the standing prism.

N.B.—In the following exercises the whole cube is used.

No. 10.—First we have an oblong hexagon.

No. 11.—Take away the four quarter cubes, which made the points at right and left, and we have an oblong octagon.

No. 12.—From this we get an oblong pentagon three cubes high.

CHAPTER VIII.

GIFT VI.

1. What it is.—Gift VI. consists of a cube of the same size as Gift V. The latter contained twenty-seven cubes, this Gift is divided into twenty-seven oblongs. As Gift V. was an extension of Gift III., so is Gift VI. a sequence and extension of Gift IV. Six of the oblongs are cut in halves, transversely, and form twelve squares. Three oblongs are cut lengthwise and make six pillars. We have in all eighteen oblongs, twelve squares, and six pillars. In building with this Gift, a larger surface can be covered than with Gift V.

2. How it may be used.—The box is opened in the same way as Gift III., etc. Then the teacher may ask: “How is this cube similar to that of Gift V.?” “It is the same size, and it stands on the same number of squares.” “How is it different from Gift V.? Look at the way it is cut.” “It is cut in oblongs. Gift V. was cut in cubes.” “What other Gift is cut in oblongs?” “Gift IV.” “What do you see that is different from Gift IV.?” “We see squares.” “How do you think they are made?” Take two of them and place them on one of the oblong bricks. “They are made by cutting an oblong in halves.” Take all the squares and put them in the front right corner. “Do you notice anything else different from Gift IV.?” “Some bricks are narrow.” Take two of these and place them on an oblong brick. “How are they made?” “They are made by cutting an oblong in two lengthwise.” We will

call these pillars. Take all the pillars and put them in the front left corner. "Now count the oblongs." Let these stand in the centre of the table. "There are eighteen." "Count the squares." "There are twelve." "Count the pillars." "There are six."

The oblong brick has been described in Gift IV. Take one of the squares. "The two largest faces are square. What shape are its other faces?" "They are oblong." Let the square stand on one of its oblong faces. "How many pillars can be made to stand on it?" "Two." "Then how much larger is the oblong face of the square, than the square face of the pillar?" "It is twice as large." Let the two pillars stand on each oblong face of the square, and the children will see that the four oblong faces are all of the same size. "Can you find a face the same size as this on another brick?" "The oblong has two faces of this size." Now take the pillar. "What kind of faces has it?" "It has two square faces, and four oblong faces." Take two of the squares, and let them stand on one of the oblong faces. "How much larger is an oblong face of the pillar, than an oblong face of the square?" "It is twice as large." "How do you know?" "Because two of the squares will stand on it." Let the two squares stand on each of the oblong faces of the pillar, and the children will see that its four oblong faces are of equal size. "Can you find a face on the oblong that will fit the oblong face of the pillar?" "The two side faces of the oblong are the same size as this face."

3. Building.—Some of the forms of Gift IV. may be taken as the basis for larger buildings, and the objects that can be built are so numerous and varied that it is possible for the children to combine and build on a much larger scale than heretofore. They might, for example, make a Farmyard with barns, dog kennel, trough, etc., or a Village with church, town hall, and streets of houses. The children

learn thus that union is strength, and that by co-operation great things may be accomplished.

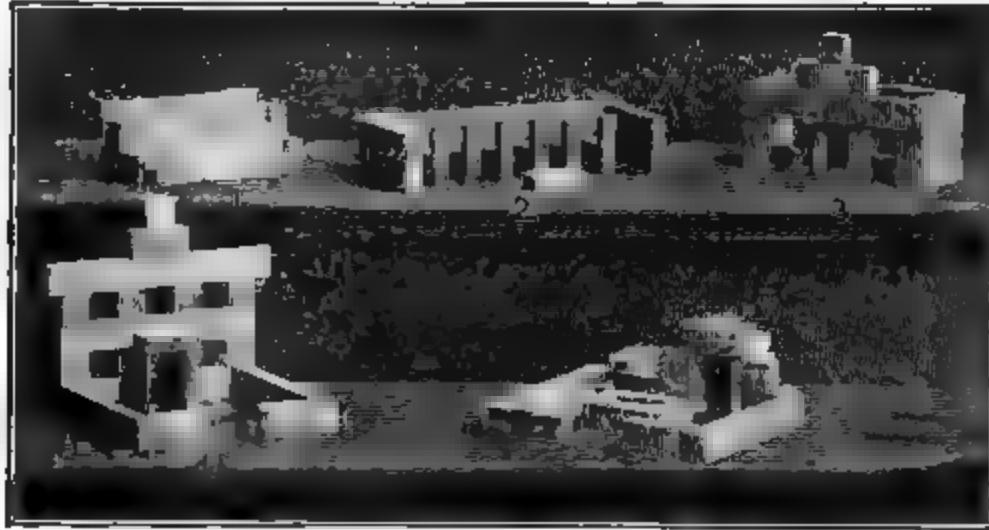


FIG. 37

- | | |
|------------------------|---------------------------|
| 1. Children's Gallery. | 4. School-front and Play- |
| 2. Stalls. | ground. |
| 3. House. | 5. Farmyard. |

No. 1. Children's Gallery.—Nine whole blocks are used for the foundation; three of these form the lowest step. For the second layer six whole blocks are used. For the third layer three whole blocks and three pillars (that is, half blocks cut lengthwise). The fourth layer has three whole blocks (or six halves) and the fifth layer has three pillars. Six half blocks now remain, one and a half for each side of the gallery.

No. 2. Stalls.—Ten upright blocks form the long wall, and four are used for each of the end walls. The divisions between the stalls contain each two half blocks (square) and one pillar. In the illustration only nine blocks are used for the wall, and one is left for a mounting block, but it is better to use ten for the wall, so that the divisions between the stalls may be exactly one inch (the width of a brick) apart.

No. 3. A House.—The back wall of the house requires

seven blocks, standing in the same position as those which form the wall of the stable, and upon these are placed three blocks and a half, the blocks lying lengthwise, and three blocks are used for each of the side walls. The rest can be seen from the illustration.

No. 4. School-front and Playground.—This figure is obtained by altering No. 3, the House; take the two half bricks which are over the door of the house, and put one at each end, so as to leave spaces for windows. On these place four bricks lengthwise, with one and a half in centre to finish. Three blocks are required for the porch, and the remaining eight are used for the playground, three for each of the side walls, and two halves (squares) for each side of the gate.

No. 5. The Farmyard.—The side walls of the Farmyard have three blocks each, with one and a half on each side of the gateway. The trough has four blocks. The “dog kennel” has one square half block on each side of the entrance, one square half block for each side wall, and one square for the back, while two oblong half blocks form the roof. The “barn” has two whole blocks for each side wall, one for the back, and three for the roof.

Fig. 38, No. 6.—Each “small chair” has one whole block for the back, with two halves (squares) on the top of each other for the seat. The “sofa” has four blocks for the seat, four for the back and one at each end. The “easy chair” has half a block (square) for seat, the same for each arm, and three pillars for back. The “table” has two and a half blocks for the top, which rests on two whole blocks. The “piano stool” is one square block. The “piano” has been given in Gift IV., Fig. 24, No. 23.

No. 7.—Ten whole blocks form the base, on which rest five blocks, and on these again are placed six half blocks, then six pillars, then six more half blocks, and lastly three *whole* blocks.

No. 8.—Seven whole blocks form the base, and on these are placed three blocks. When the three pillars have been

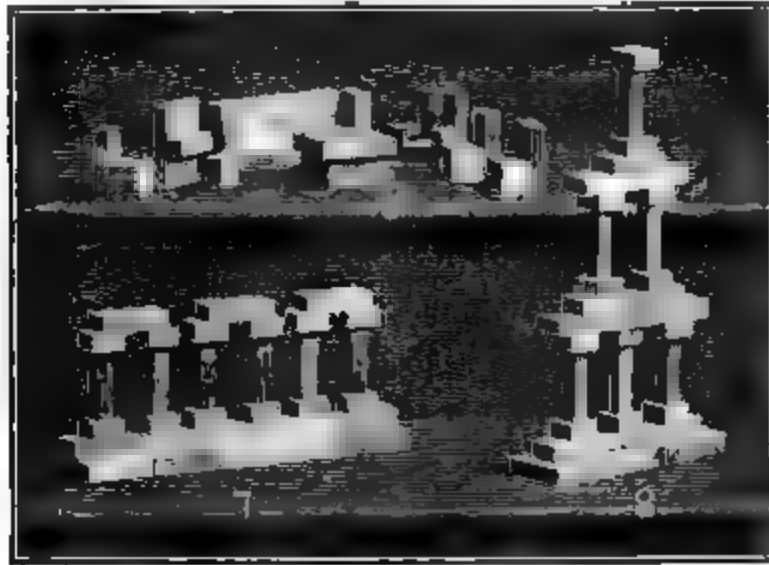


FIG. 38.

6. Set of Furniture.
7. Colonnade.

8. Triumphal Column.

built, three whole blocks are placed on them, then two blocks are placed on these ; the next two pillars are again surmounted by two whole blocks, on which rests one block, and on this the final pillar.

Rhymes to accompany No. 6, Fig. 38 :—

Here's a sofa snug and cosy,
If you like to take a rest,
Or the easy chair might suit you,
Choose the one that you like best.

Now the tea is nearly ready,
To the table chairs we bring ;
After tea we'll have some music,
For we love to dance and sing.

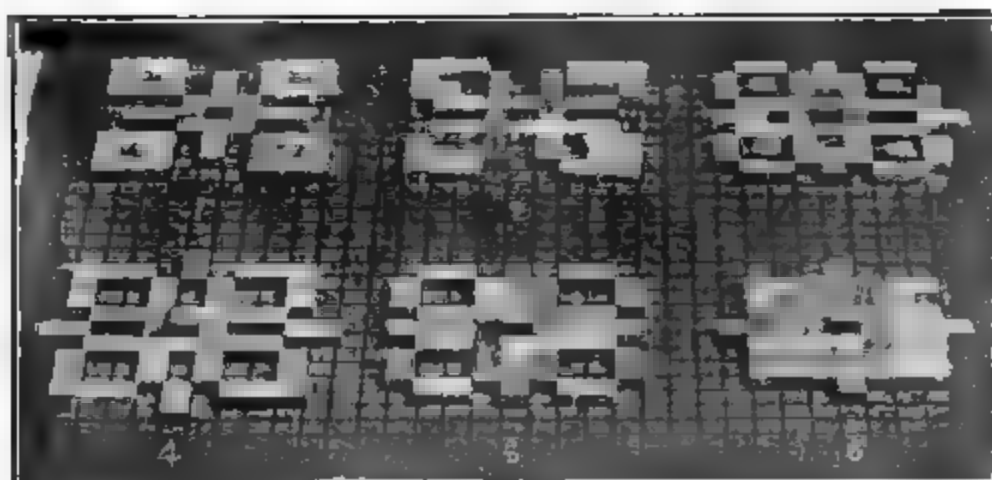


FIG. 39.

4. Forms of Beauty.—In the examples given, *all* the blocks are used, but in No. 1 the centre of each square is left hollow, so that the construction may be seen. A half block (square) should be placed in each corner square, and two half blocks in the centre square. Each figure is made from the preceding one, and each has two square half blocks for centre.

CHAPTER IX.

GIFT VII.—TABLETS.

It is an acknowledged fact that in our present system of education, the transition from the Kindergarten or infants' school to the upper school is much too sudden and abrupt. It is impossible for the child, who has been accustomed to a world of concrete things, to plunge at once into the world of the abstract. Fröbel saw this difficulty, and met it by inventing Gifts which are adapted to fill the gap, and lead naturally, by easy stages, from the concrete to the abstract. The first six Gifts consist of solids, first whole, then divided; now we have a Gift which introduces surfaces, next we shall find edges, and finally we shall come to the point. With the preceding Gifts the child made real objects, with this Gift he will make a *picture* of such objects. Gift VII. is a valuable stepping-stone to drawing, paper-weaving, and geometry.

The following instance related by M. Kraus Boelte in the *Kindergarten Guide* shows that the tablets of this Gift are useful in the practical work of life.

“ I was at the time studying with Fröbel's widow, who had been selected by him, from among his best pupils, to carry forward, under the prestige of his name, the work which he had inaugurated. One morning a stranger, to all appearances a working man, bringing with him some large object carefully wrapped in paper, called upon Mrs. Fröbel. He apologised for the liberty he was taking, but explained that his little boy, now about five years old, had

been for two years past a pupil in the Kindergarten. He stated that he himself was a joiner by trade, but as he had not sufficient means to carry on this occupation with profit, he had, some time since, become greatly discouraged and disheartened. It was about this time that he noticed his little boy, who was accustomed to come into his workshop to play when returning from the public Kindergarten which Mrs. Fröbel was conducting, and watched him as he played with the chips which he found scattered around the shop. At first the father had not paid much attention to the child's play, but one day he noticed that he had made a combination of very beautiful forms, consisting entirely of triangles, which he changed regularly and methodically from one form into another. Becoming interested he sat down by the child's side, learning from the little one. After a while he too began to arrange forms in the same way, and according to the law of opposites, so unconsciously carried out by the child—a law which the maturer mind of the man grasped at once. The result of this occupation was that in time he had manufactured some very beautiful tables, the surfaces of which, formed according to the rules practised in the Kindergarten, were inlaid with parti-coloured wooden triangles. These tables he had disposed of at a considerable profit, he had been enabled to relieve the wants of his family and better his own circumstances; his trade had materially increased and he was now becoming quite prosperous. He therefore called upon Mrs. Fröbel to express his gratitude and begged to offer her as a token of his thankfulness the little table which he had made, and which showed upon examination the star forms produced by following the law of opposites, which his little boy had been taught to find in the Kindergarten."

I. What it is.—Gift VII. consists of five boxes of tablets, made of wood and painted in different colours. The first *box contains* squares of the same size as a face of a cube in

Gift III. The second box contains right-angled triangles, made by cutting the square diagonally. The third box contains equilateral triangles, the fourth right-angled triangles with unequal sides, and the fifth obtuse-angled triangles.

2. How used.—The boxes are placed at the end of the desk and passed while the children sing:—

KEY Eb.

{ : s | m : s | s : s | f : l | l : l | s : t | t : l | s : d' | d' : s }

1. With tab-lets I should like to play, So kind-ly pass a box this way; Such

{ | m : s | s : s | f : l | l : l | s : t | t : l | s : d' | d' ||

pret - ty pictures we can make, If we a lit - tle troub - le take.

2. * Just lift the lid off, gently, so,

† Then underneath the box 'twill go;

The pretty tablets ready lie,

And we will place them carefully.

FIG. 40. (See Coloured Plate 2.)

1. Two Squares.

4. Castle.

2. Oblong lying and stand-
ing.

5. Engine.

3. Church.

6 to 10. Forms of Beauty.

(a) **Squares.**—Let each child take out one tablet. Teacher asks, “What shape is the tablet?” “It is square.” “Where have you seen a square of this size?” “On the table, on the cube.” Give each child a cube, and let him put one tablet on each of its six faces. “Suppose we had a knife to lift off each of these tablets” (the Teacher might take hers off with a knife), “it would be like cutting a slice from each face of the cube. How then is the tablet different from the cube?” “It is flat, and has only two square faces.” “What is it made of? Who made it?” etc. “What has been done to the tablet to give it these pretty

* Raise the lid.

† Put the lid underneath the box.

colours?" "It has been painted." Refer to the four right angles, the four sides, etc. Let the child have eight tablets, and make first two squares (No. 1), then an oblong figure lying down and standing up (No. 2). From the latter the children may learn that the two long edges are parallel, because they are the same distance apart. Then the child may lay objects as in Gift III., Nos. 3, 4, 5. Two or three of these are given in the sketch, and many more may be added by a glance at the illustrations given in the chapter on Gift III. Every picture laid will furnish opportunity for intelligent conversation, without which the lesson will be lifeless and useless. Forms of beauty made with Gift III. can all be made with the tablets. A few, Nos. 6 to 10, are given, for the rest see Figs. 18, 19 and 20, Gift III.

FIG. 41. (See Coloured Plate 2.)

- | | |
|------------------------------------|-------------------------------|
| 11. Square. | 17. Coffee Mill. |
| 12. Right Angle in four positions. | 18. Cottage. |
| 13. Mountains. | 19. Pigeon House. |
| 14. Trimming. | 20 to 24. Forms of Knowledge. |
| 15. Rhomboid. | 25 to 27. Forms of Beauty. |
| 16. Boat. | |

(b) **Right-angled Triangles.**—The box may be passed and opened in the same way as the box of square tablets, and the teacher says: "Take out two tablets. Join your tablets to make a square. Now you can tell me how these tablets were formed." "The square was cut in two, from corner to corner." "You will remember that the square had four right angles, look at the triangle, how many right angles can you see?" "We can see one." "Where is it?" "It is where the standing-up and lying-down lines meet together." "Then you have two other angles which are alike. What kind are they?" "They are sharp angles."

1. The first part of the paper is devoted to a general
 discussion of the problem. It is shown that the
 problem is of great importance in the theory of
 functions of a complex variable. The problem is
 solved in the case of a certain class of functions.
 The results are then applied to the theory of
 conformal mappings.

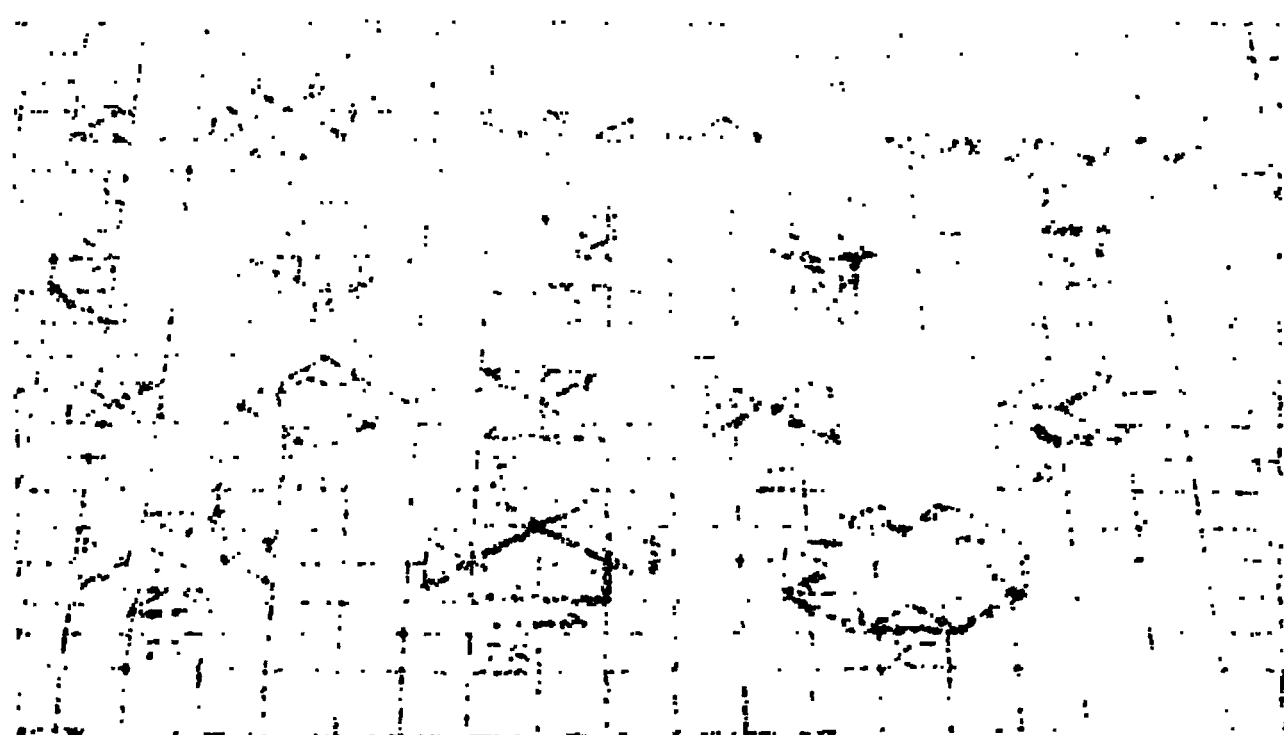


PLATE 2

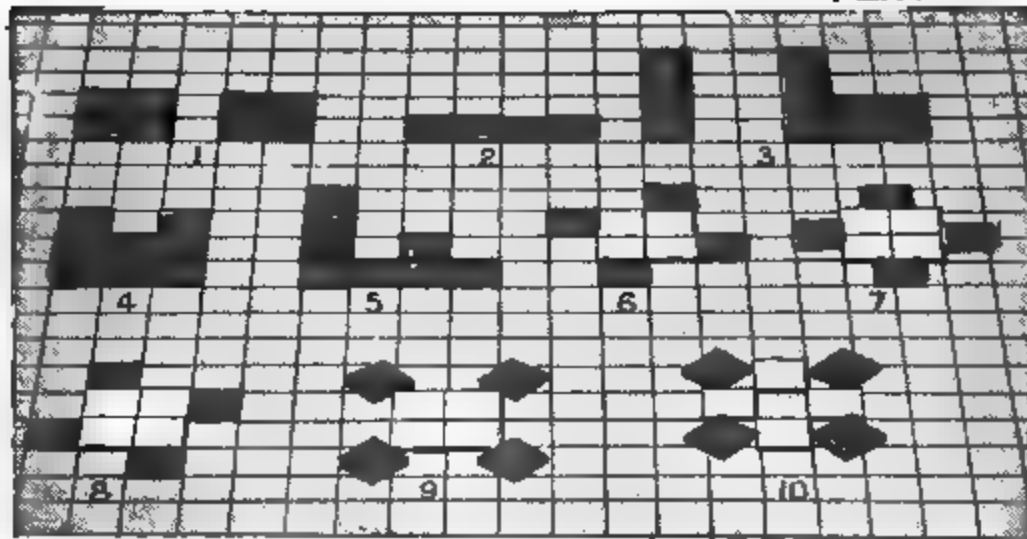


FIG. 40.

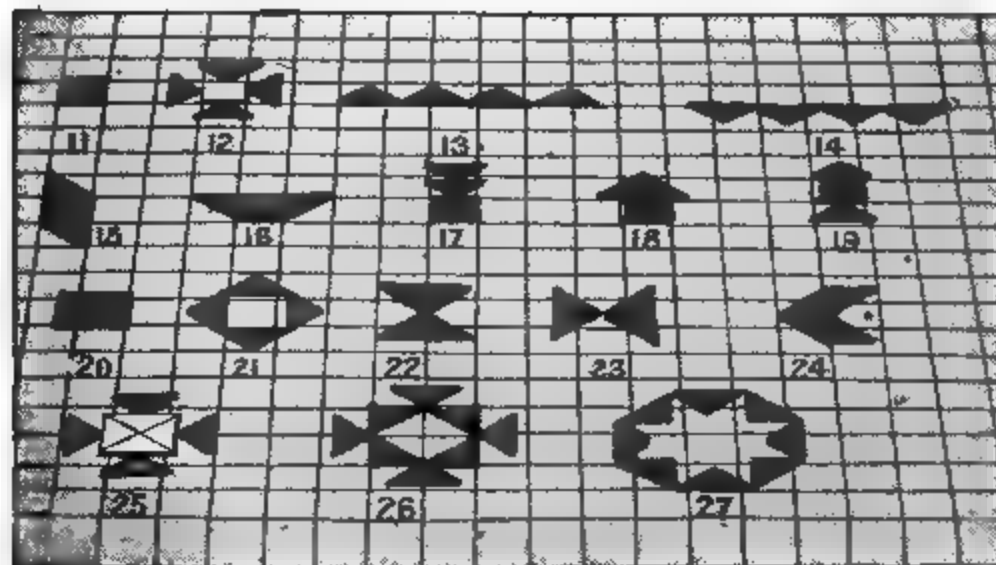


FIG. 41.

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“Why?” “Because they are smaller than the right angle.” “How much smaller are they?” “They are just half the size.” “How do you know?” Let the child lay the two tablets on a square tablet, and it will then see that two of the right angles have been cut in halves (No. 11).

“What kind of a line do you see opposite to the right angle?” “It is longer than the other two, which are both alike.” “We will call this long line the base line. Where have you seen a triangle of this shape before?” “In Gift V.”

No. 12.—Place your triangle with its base line towards you, now turn the right angle towards you. Place the triangle with the base line towards the right, then towards the left.

No. 13.—Take four tablets and lay them with the base line towards you and we have a chain of mountains; from these form two rhomboids.

No. 14.—Place the tablets in a row, with the right angles towards you, and it looks like pointed trimming for a dress.

Nos. 15 to 19 are all made with four triangles.

Nos. 20 to 24.—Take the four tablets and place them in various positions.

Nos. 25 to 27.—Then all sorts of beautiful figures may be laid (see No. 25, etc.), and the children may combine their productions to make a larger pattern.

FIG. 42. (See Coloured Plate 3.)

(c) **Equal-sided Triangles.**—The triangle which is now given to the child is entirely different from the previous one. A box containing nine is passed to each child, the same verses being sung, or said, as for the square tablets. When the box has been opened, the child is allowed to take out two triangles, and the teacher says: “Let us see whether these triangles are like the right-angled triangles. You remember that two of those made a square.”

No. 26.—“Put two of these together. Do they make a square?” “No,” say the children, or they may answer, “that the triangles make a slanting square”. We see, then, that these triangles have not been formed from the square. Make a circle on the blackboard with one inch radius, divide the circumference into six equal parts, and join the points to make a hexagon.

No. 27.—Draw from each point of the hexagon to the centre and we have six equilateral triangles, which the children may call equal-sided. The teacher may then place a tablet on each of the triangles drawn, to show the children that the circle will hold six equal-sided triangles. They will then measure the sides of the triangles, and will find that these are all of the same length, that is why we call them equal-sided. Now give two right-angled triangles to each child and let them compare. “Has the equal-sided triangle any right angles?” “No, for all its angles are smaller than right angles.” Then they are all sharp angles. Explain to the children that a sharp angle may be a little smaller than a right angle, or a great deal smaller, or half the size. Two of these sharp angles put together (No. 26) make a blunt angle, so you see they are larger than the sharp angles of the right-angled triangle. The two equal-sided triangles are then placed in every possible position with relation to each other, side to side, corner to corner, side to corner, etc. Then three triangles are given (see Nos. 28 and 29) and then six. With the latter number many forms may be made (Nos. 30 to 34) and the children may combine to make a larger pattern (see No. 35).

FIG. 43. (See Coloured Plate 3.)

(d) **Right-angled Triangles with Unequal Sides.**—Each child would receive a box containing eight of these triangles; the boxes are passed and opened as before. “In the previous triangle all the sides were equal, how are they here?”

1. The first part of the paper discusses the importance of the study of the history of the United States. It is argued that the study of the history of the United States is essential for a full understanding of the country and its people. The paper then goes on to discuss the various factors that have shaped the history of the United States, including the role of the American people, the influence of the American government, and the impact of the American economy.

2. The second part of the paper discusses the role of the American people in the history of the United States. It is argued that the American people have played a central role in the development of the country, and that their actions have shaped the course of the nation's history. The paper then goes on to discuss the various ways in which the American people have influenced the history of the United States, including through their participation in the American Revolution, the American Civil War, and the American Civil Rights Movement.

3. The third part of the paper discusses the influence of the American government on the history of the United States. It is argued that the American government has played a central role in the development of the country, and that its actions have shaped the course of the nation's history. The paper then goes on to discuss the various ways in which the American government has influenced the history of the United States, including through its role in the American Revolution, the American Civil War, and the American Civil Rights Movement.

4. The fourth part of the paper discusses the impact of the American economy on the history of the United States. It is argued that the American economy has played a central role in the development of the country, and that its actions have shaped the course of the nation's history. The paper then goes on to discuss the various ways in which the American economy has influenced the history of the United States, including through its role in the American Revolution, the American Civil War, and the American Civil Rights Movement.

large.

(See Chapter 10.)

10. Right-angled Triangles with Unequal Sides.—If you had a box containing two apples; the box closed and opened, still a right-angled triangle and the sides were equal, but the

PLATE 3.

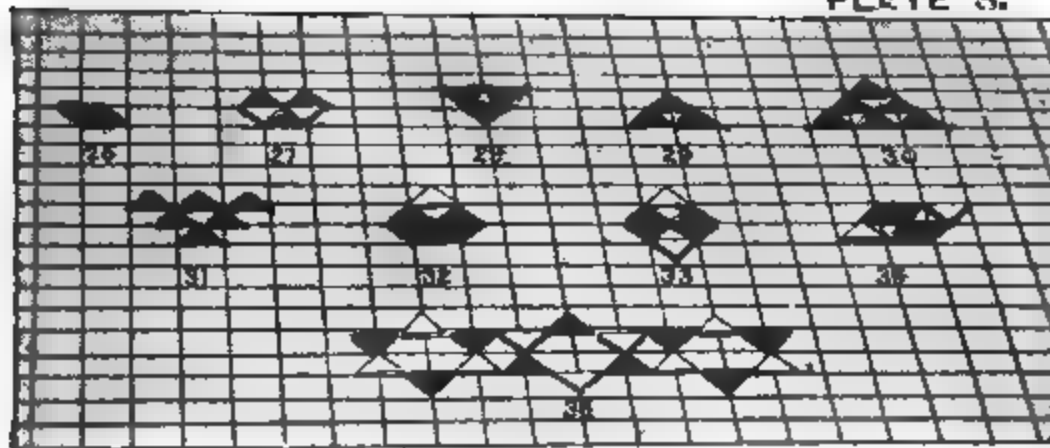


FIG. 42.

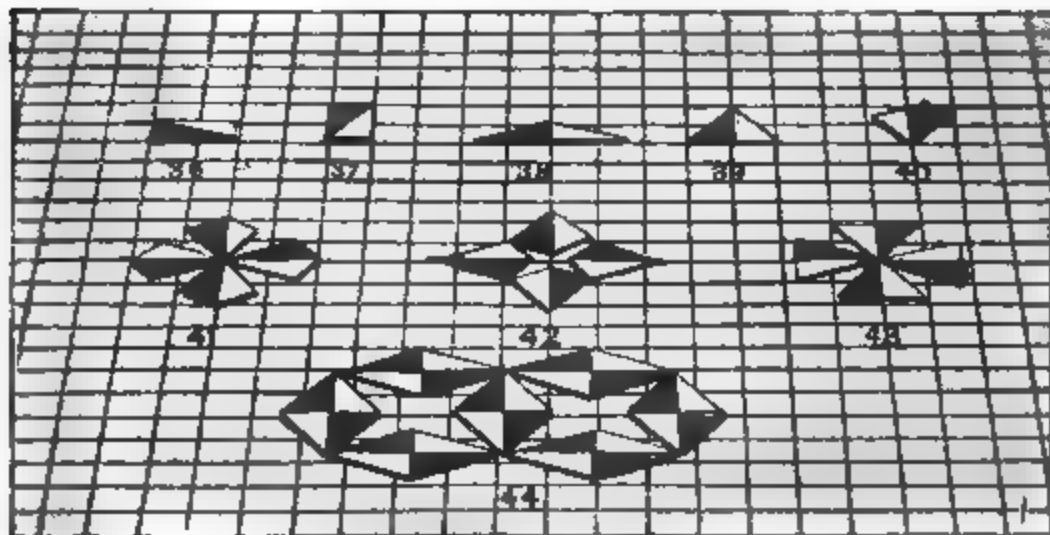


FIG. 43.

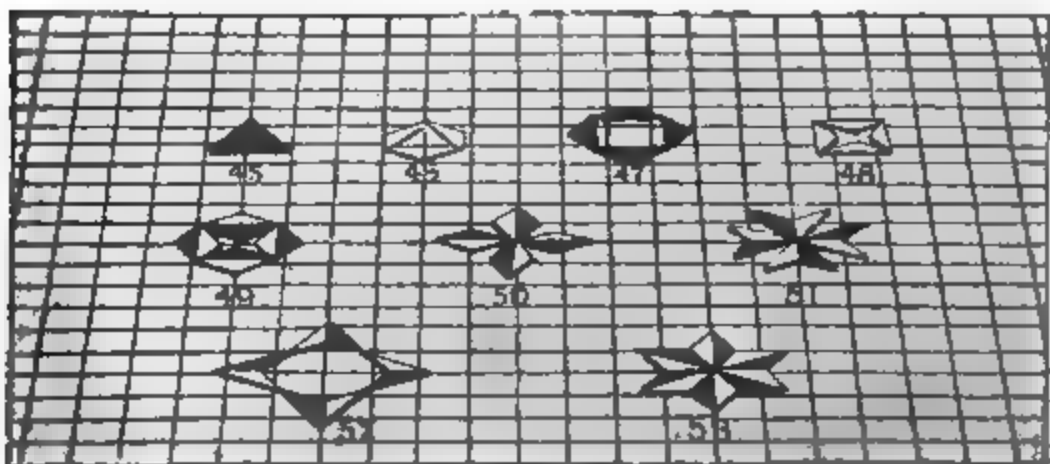


FIG. 44.

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“ They are all different.” “ Put two of these triangles together with their longest edges touching each other ” (No. 36), “ and try to find out how they are made.” The children will say they are made by cutting the oblong across from corner to corner. The oblong formed by joining the two triangles covers two square inches, and the triangles are of equal size, so that one of them is equal to a square inch. “ Now look at the angles, one of them is a right angle. How do you know ? ” “ Because it is enclosed by a standing-up and a lying-down line.” “ The other two angles are sharp angles. Are they both the same size ? ” The child measures one over the other and finds that they are not. Put the two tablets together and many forms are produced (see Nos. 37 to 40). Nos. 41 to 44 show other designs.

FIG. 44. (See Coloured Plate 3.)

(e) **Obtuse-angled Triangles.**—This triangle contains one blunt and two sharp angles, the latter being equal in size. If three of these are placed together with their blunt angles towards the centre, they form a large equal-sided triangle (No. 45). Take one triangle, place the blunt angle towards you, from you, to the right, to the left. Then two triangles are placed in various positions with relation to each other, then three (No. 46), then four (No 47). With six triangles a number of forms can be made, and these may be multiplied indefinitely by using more.

CHAPTER X.

THE JOINTED LATH.*

1. Introductory.—The laths form a stepping-stone from the plane surface of the tablet to the representation of forms by points and lines. In this Gift a broader surface represents the edge than is the case in Stick-laying, and there is the advantage of being able to lift up the forms when they are made.

2. What it is.—The jointed lath here shown is a yard in length when opened out, and it is divided into nine parts of four inches each, which are jointed together, so that it folds up into very small compass. It is marked in inches and can therefore be used for measuring.

3. The Uses of the Jointed Lath.—(a) If the jointed lath had no further use than to teach the different kinds of angles it would not be introduced in vain. How it can be used for this purpose is fully explained in Gift V., page 67, so it will be sufficient merely to show the different angles (see Fig. 45, Nos. 1, 2, 3).

(b) Another important use to which this Gift can be put is measuring. Just as the child should have some idea of the relative weight of different objects, so it will be a great advantage if he is taught also how to measure distances. Without this knowledge correct drawing is impossible

(c) A third important use is found in the facility with which the different forms may be changed into one another, as is illustrated later.

* See Appendix 5.

How the Lesson is given.—No. 1.—Turn the eyes
 to the printed book on your left hand and with the

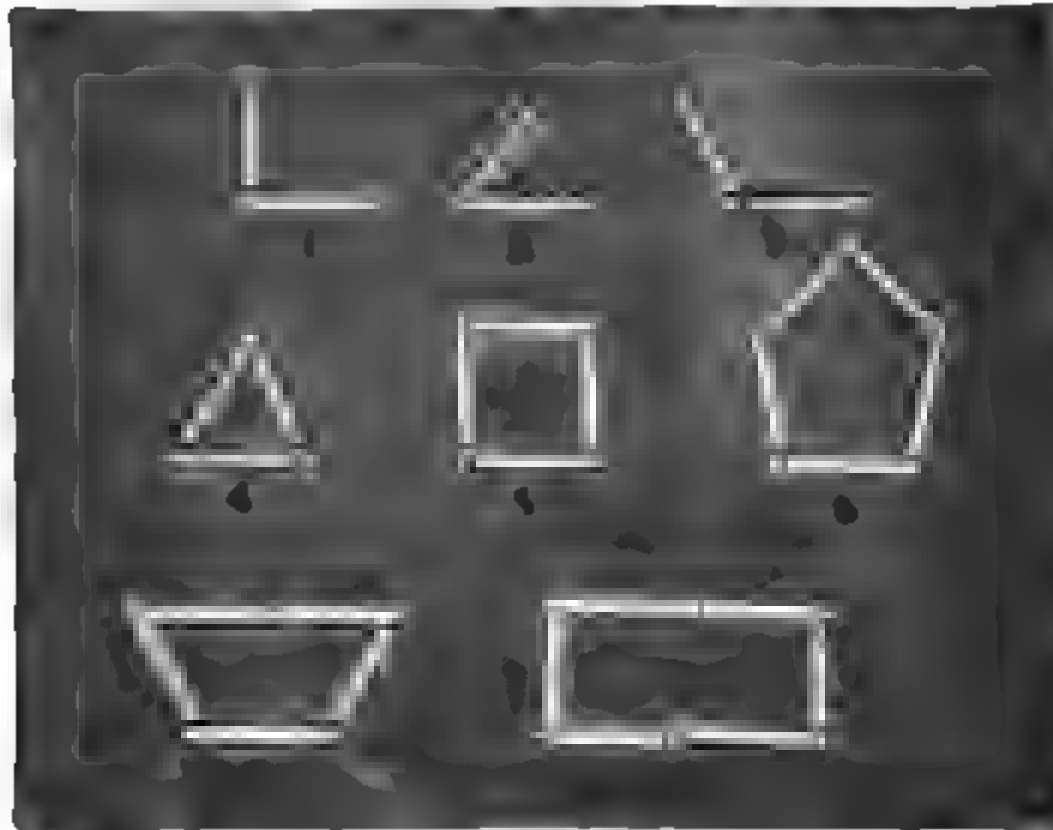


FIG. 10.

1. Right Angle.
2. Acute Angle.
3. Obtuse angle.
4. A Triangle.

5. Square.
6. Rhombus.
7. Standing Pent.
8. Trapezoid.

right hand open the first book by the folded portion
 lie on the table from right to left and as the open part
 stand up and No. 1, and we have the right angle.

No. 2.—Fold the standing up part downwards and you
 make the acute angle.

No. 3.—Let it stand up again and bend it backwards
 towards the left for the obtuse angle.

No. 4.—Now unfold another book and make the triangle.
 We could not enclose a space until we used three laths.

No. 5.—With four sides two may be equal & unequal, and it may not be a right angle, but it will be a parallelogram.

No. 6.—With four sides two may be equal & right angles, and it may not be a parallelogram, but it will be a rectangle.

No. 7, A Washing Tub.

No. 8.—A parallelogram with

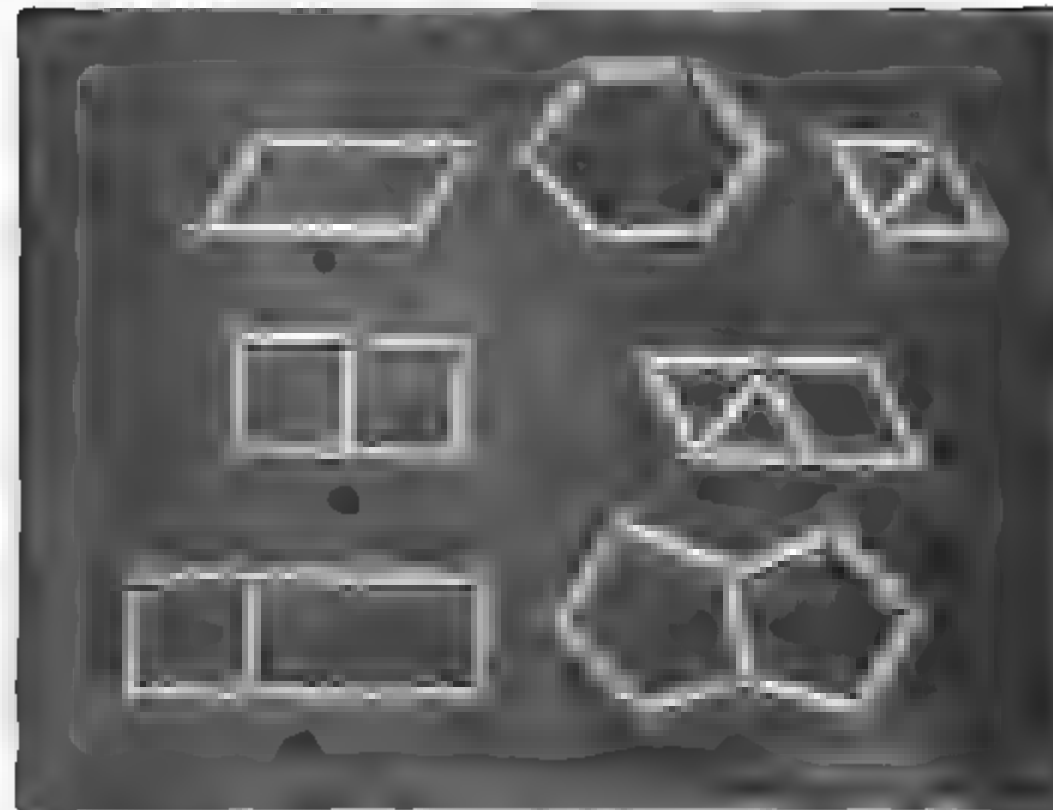


Fig. 10.

9. Rhomboid.

10. Hexagon.

11. Two Triangles.

12. Two Squares.

13. Rhomboid and two Triangles.

14. Square and Rhomboid.

15. Two Rhomboids.

No. 9.—The Rhomboid is made from the Rhomb of No. 5, by pulling the upper right corner a little to the right.

No. 10.—The Hexagon is changed into No. 11, the two triangles. When again the triangles may be made, and with eight we may make the octagon.

No. 12 can be made from the octagon by folding two of its sides together, and placing them as a division between the two squares. The children will call this form two windows.

No. 13.—Nine laths are used for this figure and the same number is required for No. 14, which shows clearly to the children the difference between the well-known forms square and oblong.

These examples are sufficient to indicate how admirably **this** simple apparatus lends itself to the formation of **geometrical figures**, and how invaluable such teaching must **be as a** preparation for later studies, such as geometry.

This is mostly for older children. If the jointed lath be **used** by the younger children, they should only make the **very simplest figures**.

CHAPTER XI.

THE LATH.

1. Introductory.—In this Gift, as in many others, Fröbel has noticed the natural bent of the child and has invented means to satisfy it. Children have always been fond of weaving grasses, or rushes, or even small twigs together. Very few shapes could be made with these materials, but Fröbel's Gift provides material with which an infinite variety of forms can be constructed.

This Gift is more suitable for older children than for the little ones, and to them, as well as to grown-up people, it may be a training in self-control, for very often, when a form is almost complete, a lath will slip out of its place and spoil it. It needs much patience to intertwine the laths so as to make correct shapes, and this is another virtue which the Gift is well calculated to develop. Another lesson learnt is, that to attain perfection is of more importance than to do elaborate work. We learn also how easily one misplaced lath will spoil a beautiful figure, and how important it is, therefore, to place each lath exactly in its place.

2. The Lath.—The lath is a piece of wood 10 inches long, $\frac{2}{5}$ of an inch wide, and only $\frac{1}{18}$ of an inch in thickness. It will, therefore, bend and vibrate. The child may be allowed to prove this for itself. Press one end of the lath firmly on the table with the left hand, and raise the other end a little distance from the table with the right; let it fall sharply against the table, and the vibrating noise will be

heard. This shows the elasticity of the lath. The children will think of other things that bound back again after being pulled.

3. How the Laths are used.—The laths should be given to the children in bundles of about ten. If the child has a Kindergarten table, marked in inch squares, the lath can be measured, also the middle of it may be found, or the child may even be allowed to mark it off in inches the whole length. When one lath has been thoroughly examined, and placed in various positions, two laths may be given, and these can be used to show plainly the meaning of parallel lines. Place the two laths on the table one inch apart. These are parallel lines. If we move one of them so that it slants a little away from the other, they are no longer parallel. If we slant both, so that there is the same distance between them all the way, they are still parallel. “Where have you seen parallel lines?” “The railway and tram lines are parallel.” “If the railway lines were not parallel, that is, if they were not the same distance apart all along, what would happen?” “The train would go off the lines.” “But if you stand on a bridge, where you can look along the railway, the lines do not *seem* parallel; in the distance they seem to run closer and closer together, but although they look like this, they are still the same distance apart.” With two laths, also, a right angle can be made, and changed into the sharp and blunt angles, as with the jointed lath. With two, three, four, or a larger number of laths forms of life may be made, just as with the sticks, for illustrations of which see page 95, etc.

It is not until we use four laths that we can make a form which can be lifted up. Every lath must touch three other laths if it is to keep in its place.

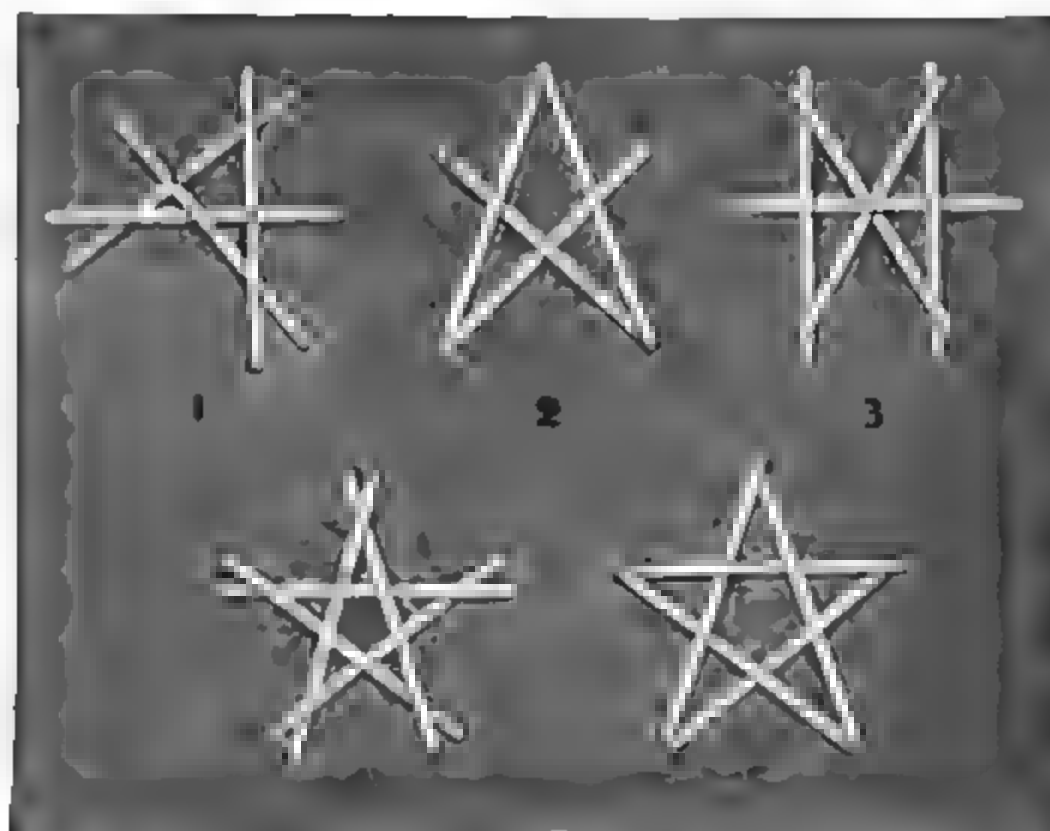


FIG. 47.

No. 1 — The first form is made thus —

We will number the laths 1, 2, 3, 4. No. 1 is laid on the table in a vertical position. No. 2 is laid over it at right angles so as to cross No. 1 in the middle. No. 3 is passed under 1 and over 2. Then 4 is passed under 1, over 3, and under 2.

No. 2 is made from No. 1 by drawing the laths together at the ends.

In No. 3 a fifth lath is inserted.

No. 4 is a modification of No. 3.

No. 5 is made from No. 4 by drawing the laths together at the ends.

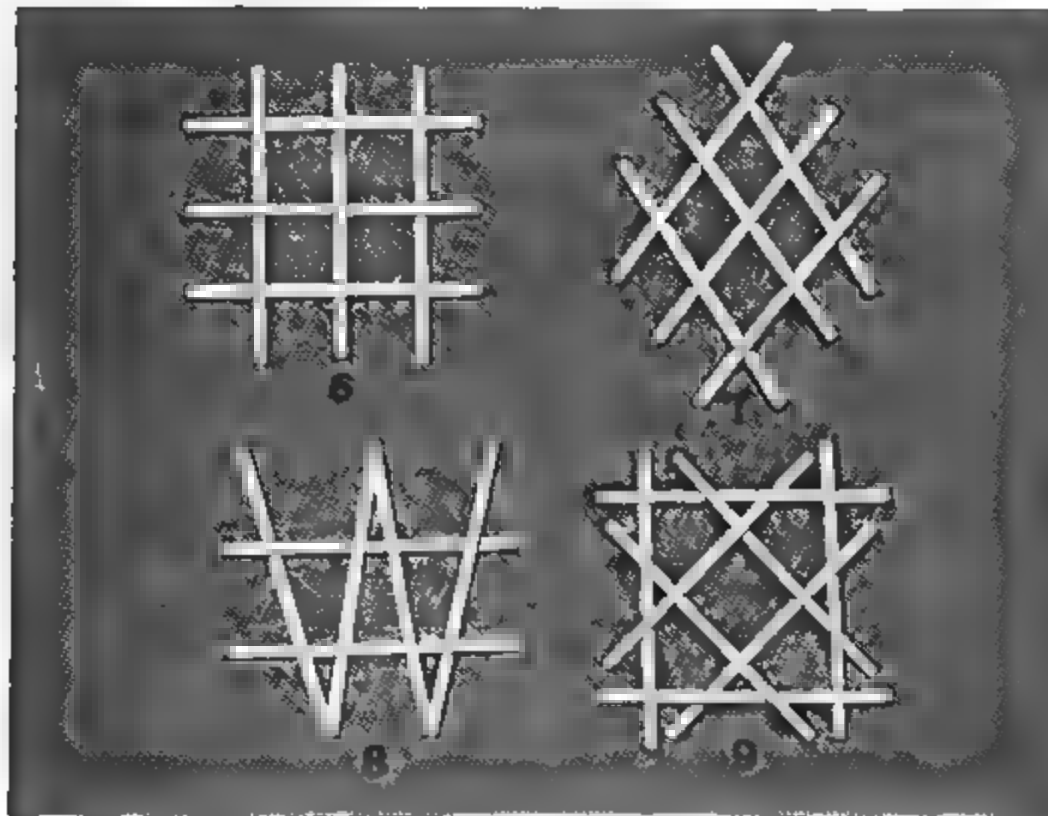


FIG. 48.

In No. 6 six laths are used, and interlaced as in mat-weaving. If this form be held at the corner No. 7 is seen. Eight laths will make a large square with a smaller square inside it (No. 9).

CHAPTER XII.

STICK-LAYING.

1. Introductory.—As the Tablets formed a stepping-stone from the concrete to the abstract, so the Sticks also carry us another step in advance.

With the Tablets we were able to form *pictures* of objects, with the Sticks we are able to make *outline* pictures only, as the stick represents the line or edge of the surface. In the hands of a skilful teacher, a bundle of these simple sticks opens up to the children a veritable fairyland, so manifold and various are the uses to which they can be put.

2. The Sticks.—The sticks are round and smooth and about as thick as a match, the first used are two inches in length, and each child should receive a box or bundle containing ten of these. The cost of material used in this Gift is very trifling.

3. Conversation.—The first thing is to make the child thoroughly interested in the object it is about to use. The teacher might begin by asking : “ What is the Stick made of ? Who made it ? ”

“ What other things are made of wood ? ” Then a little story might be told : “ One day a little boy had some beech-nuts in his pocket, and as he ran through the wood one nut fell out, and by-and-by some one came along and trampled it down into the soft earth. Then the sun warmed *the earth*, and the rain made it moist, so that the nut began to

grow. It sent its roots downward, and pushed a little green shoot through the earth upward, and grew bigger and bigger every year, until it was a fine large tree. In Summer it was covered with beautiful, smooth, shiny, little green leaves, a dress fit for a fairy, and the children loved to sit under its branches; then the Autumn came, and the leaves turned yellow and brown, and dropped off, one by one, and in the cold Winter the beech tree stretched out its bare arms for the pretty white snow to cover them. But when the Springtime came round, it began to put on its green fairy dress again, for it was covered with tiny buds, and birds flitted to and fro amongst its branches. But one day the woodman came, and put a white cross on the tree, and soon it was cut down, and from it the joiner made these little sticks. You see, now, how much trouble it has taken to make them: first the seed had to be planted, and then the tree had to grow for many years before it was big enough to be cut down. How good God is to make so many trees, for there are plenty left for shelter, even when we have cut many down to make things of the wood."

A conversation like this will invest the plaything with a charm which it could not otherwise possibly possess. Another time the teacher might talk about the different kinds of trees, how some of them have leaves that do not fall off, these are called evergreens; and how others have lovely blossom in the Springtime, and in the Autumn they bear fruit which we eat. A Kindergarten game such as* "The Spring Game" or "The Autumn Game" might appropriately follow a lesson like this. The children would then themselves be trees, waving arms for branches, and the little stick which came from the tree would be more deeply interesting than before.

4. How the Sticks are used.—The children are allowed

* See Appendices 2 and 3.

to take out one stick from the bundle and the teacher asks "What does this stick look like?" One child will answer, "It looks like a pencil", another may say "It looks like a match" and so on. When a number of answers have been obtained the children may be asked to repeat all the objects which the stick has been said to resemble. This exercise will strengthen their memories and the children will be gratified to hear again the names of the objects they each mentioned. "What shape is the stick?" "It is round so it will roll." "If we try to bend it what will happen?" "It

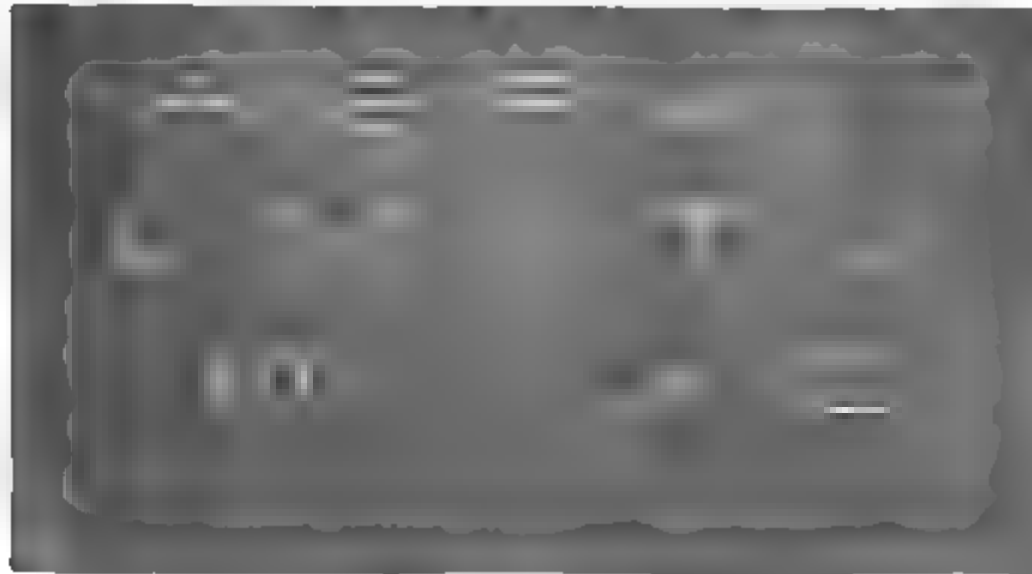


FIG. 10.

will break." "And if we throw it in the fire?" "It will burn." The stick should then be held in various positions. We can make it stand up on the table if we hold it— we can also hold it in a lying down position, or slanting upward to the right and the same to the left. We can lay it on the table so as to make a standing up line or a lying down line or slanting lines. When you laid one of the test IV blocks (which is just as long as these sticks) on the table what happened to the two squares on which it was laid? They

were covered up." "Now look at the stick, it is two squares long. What does it cover up?" "It covers only the line." Two sticks are now given to the child, and with them it makes a longer standing up line, or two slanting lines; then the two sticks may be laid parallel, and the children are asked "Where have you seen other lines running along the same distance apart?" "Railway lines, tram lines, etc."

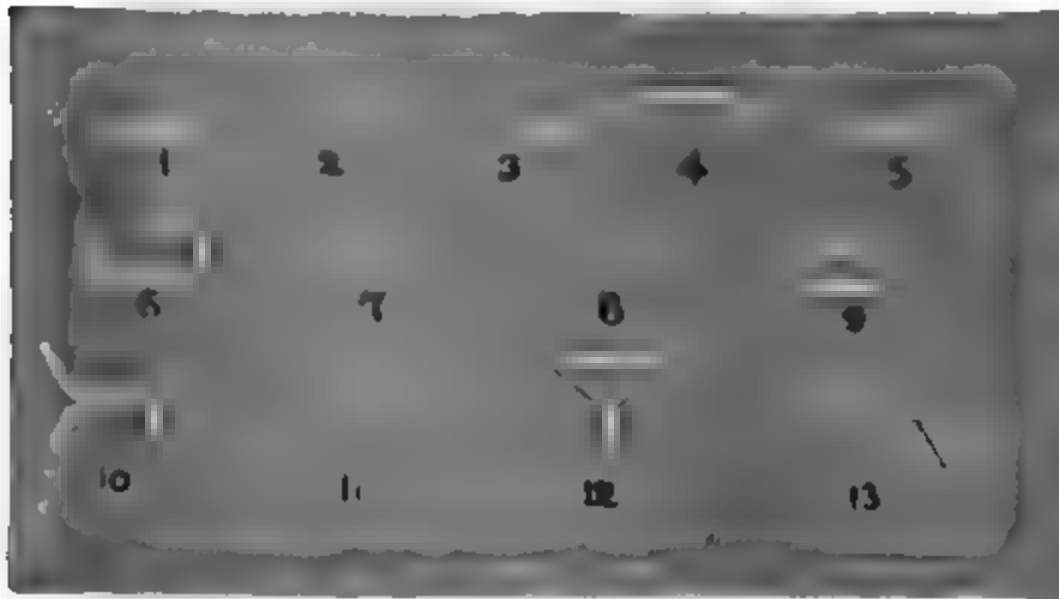
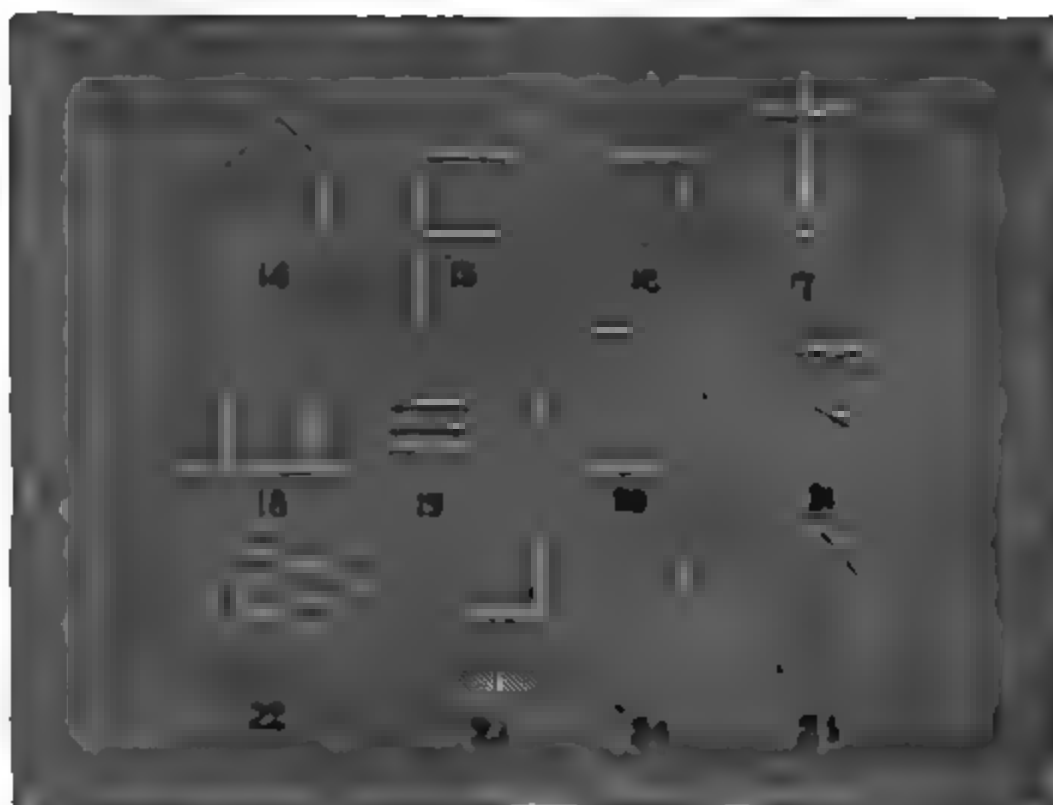


FIG. 50.

- | | |
|------------------|-------------------|
| 1. Candle stick. | 8. Cottage. |
| 2. Tent. | 9. Flower-pot. |
| 3. Triangle. | 10. Rustic Chair. |
| 4. Table. | 11. Larger Tent. |
| 5. Flower-pot. | 12. Funnel. |
| 6. Open Box. | 13. Bench. |
| 7. Chair. | |

With two sticks we lay a candle-stick and a tent, Nos. 1 and 2. With three we form the objects 3, 4 and 5, and as more sticks are given, larger and more varied objects can be produced, as shown.



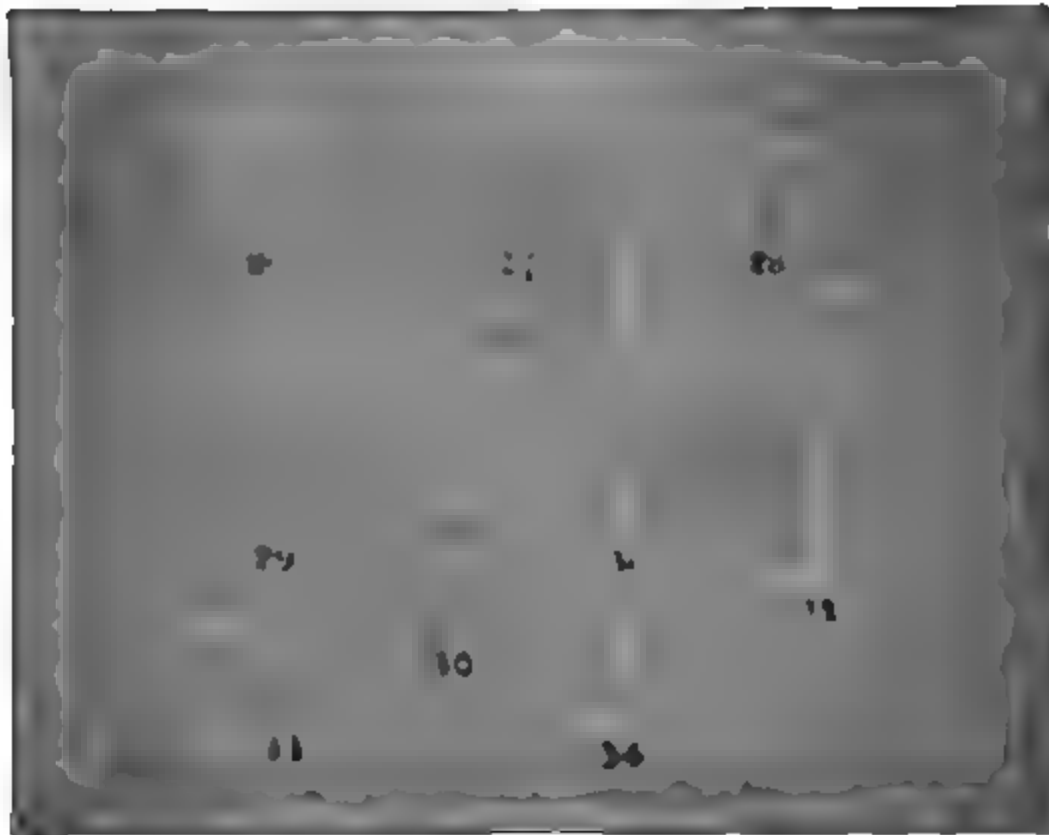
Pl. 61

- | | |
|-----------------|--------------------|
| 14. Kannel. | 20. Hexagon. |
| 15. Flag. | 21. Flag. |
| 16. Flower-pot. | 22. Steamer. |
| 17. Anchor. | 23. Reading Stand. |
| 18. Hat. | 24. Picture. |
| 19. Towel Rail. | 25. Pigeon House. |

Nos 14 to 19 are each made with five two-inch sticks, the remaining figures on this plate have six sticks each. Every figure affords opportunity for interesting and instructive conversation, and many of these objects can be used to illustrate Kindergarten games. See table of Connective Lessons, p 18.

Sometimes the children may be divided into groups, and each group may lay a different object. Suppose the objects given below are made by the different groups, the children will be pleased to hear them mentioned in the rhyme.

An Anchor and a Reading Stand,
And Picture we have made,
A Kannel and a Pigeon House
All evenly are laid.



Pls 52

- 26. House
- 27. Two Windows
- 28. Plant in Pot
- 29. Church Window
- 30. Spade

- 31. Umbrella
- 32. Street Lamp
- 33. Envelope
- 34. Cottage



In No. 26 six stiches are again used

No. 28 introduces four one-inch stiches

No. 30 - The Spade has three two-inch stiches and lengthwise then three more to form the triangle and one for the handle.




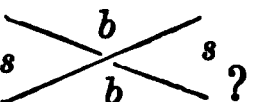
No. 31 - The stick of the Umbrella is formed by three stiches, each two inches in length - there are two of the same length on each side the stick and two one inch stiches form the base of the triangle.

No. 32 - The Street Lamp rests on a stem, formed by two

two-inch sticks, and the same length of stick is used for the lamp and base.

No. 33.—The Envelope takes eight two-inch sticks.

No. 34.—The Cottage requires ten.

5. Geometrical Figures.—(For older children.) The right angle may be laid in four different positions, in the four corners of the table. Then the children may be asked to place the two sticks so as to form two right angles, thus: . Now try to place them so that you will have four right angles, . They can also form the sharp angle, by making the right angle smaller, and the obtuse angle, by making it larger. Now let one stick lie down, and place the other so as to make one blunt and one sharp angle, . Now can you place the sticks so as to make two sharp angles and two blunt ones, ?

With three sticks, three parallel lines may be laid, and the triangle may be formed. With four sticks we make the square and the rhombus. With five, the pentagon, the trapezoid and an isosceles triangle. Six sticks give the hexagon, the oblong, the rhomboid and the trapezium. From this it will be seen that the sticks, like the tablets, are valuable as a preparation for *geometry and mathematics*.

Stick-laying is a direct preparation for drawing, and many of the figures laid with sticks can be copied in pencil on the chequered lines of the slate. It is also an aid to reading, for the letters can be formed with sticks; it helps largely in the teaching of writing as is shown in the chapter on this subject, and the sticks can be used for teaching number in the same way as the boxes of shells, which are mentioned in the chapter on Number.

CHAPTER XIII.

RING-LAYING.

1. Introductory.—Of all Fröbel's Gifts none appeals more directly to the sense of beauty than this one. Matter-of-fact people may object to a Gift whose chief object is the development of the artistic. But if we believe that the appreciation of beautiful things has an elevating effect on grown-up people, what must its influence be on the tender, plastic mind of a little child? By opening the gate "Beautiful" to its vivid imagination, do we not lead it a step forward in the path of goodness, for true beauty is closely allied with goodness?

2. Of what does the Gift consist?—The material used is made of wire, and consists of rings and half rings of various sizes—an inch, an inch and a half, and two inches in diameter—the half rings corresponding to the various sizes of the whole rings. Just as the sticks were a development of the cube (its embodied edge), so the rings are a development of the ball and cylinder, the ring being, in fact, the embodied edge of the cylinder.

3. How the Gift is used.—Give one ring to each child, ask what is its shape, what other things have the children seen similar in shape? "A hoop, Mother's ring, links in a chain, etc." The children will now be able to learn the difference between things round like the ball, round like a penny, and round like a ring. "How is the ring different from the penny?" "We can look through it, and put our finger through it." "What would have to be done to the

penny to make it like the ring?" "All the middle part of it would need to be taken out, leaving only the edge." "How does the penny differ from the ball?" "The penny is flat and round, while the ball is round all over." "Take up your ring and make it spin round like a top in the middle of the table, listen to the noise it makes when it falls down. Why does it make such a ringing sound?" "Because it is made of iron." "Hold the ring in one hand, and a two-inch stick in the other. How does the ring feel?" "It is heavy." "See! I will put it in a glass of water, what happens?" "It sinks to the bottom." "Now I will put the stick in the water and you will see what happens." "It floats on the top." "Why does the stick swim, and why does the iron sink?" Proceed to elicit from the children that the iron is cold and hard, and will not easily break. This will be quite enough for the first lesson.

In the second lesson another interesting conversation may be given about different things that are made of iron. "Think of the largest thing you have seen made of iron." The children will probably reply, "A steam engine". How big and strong the steam engine must be to pull the heavy train along! and yet the same iron that makes the mighty engine can be drawn out into a wire almost as fine as a hair, to form the mainspring of a watch. Let the children see a mainspring if possible. Other things made of iron, such as the grate, steam pipes, iron gate, kettle, etc., will be mentioned, and the children will learn that, although gold and silver are the most costly of metals, yet iron is by far the most precious, because the most useful.

Still another lesson might be taken in describing the interesting process by which the iron is obtained. How the miners go deep into the earth to dig out the iron ore, which is brought up in baskets or buckets. The shaft may be described (which the children probably built with *Gift IV.*). "It is dark down in the mine, and each man has a

lamp or a candle to work by. How kind the miners are to bring up the iron that makes so many useful things! Their faces are black with working in the mine, but that is no disgrace. Then the ore is melted in a furnace, and the red hot liquid runs down into moulds made of sand, and it is now called pig iron. Suppose that a little boy had an iron hoop and broke it, how would the blacksmith mend it?" "He would take the two ends and make them red hot in the fire, and while they were soft, he would hammer them together, and the broken hoop would be whole again." "Iron will rust with the damp, and the rust wears it away." Such conversations as these invest the simple iron ring with a wonderful charm, and the children learn to be deeply interested in the common things around them, which, in itself, is an infinite advantage; for the more interest a person takes in the common things of life, the more of joy and happiness he gets out of it, and if the Gift teaches no other lesson but this, a valuable one will have been learnt.

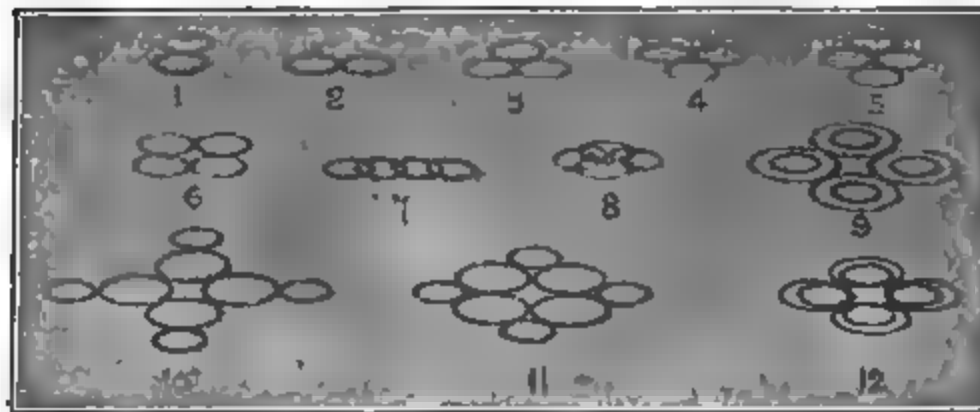


FIG. 53.

Fig. 53 shows figures first with two rings, then with three, then with four, and, lastly, with four small rings and four large ones.

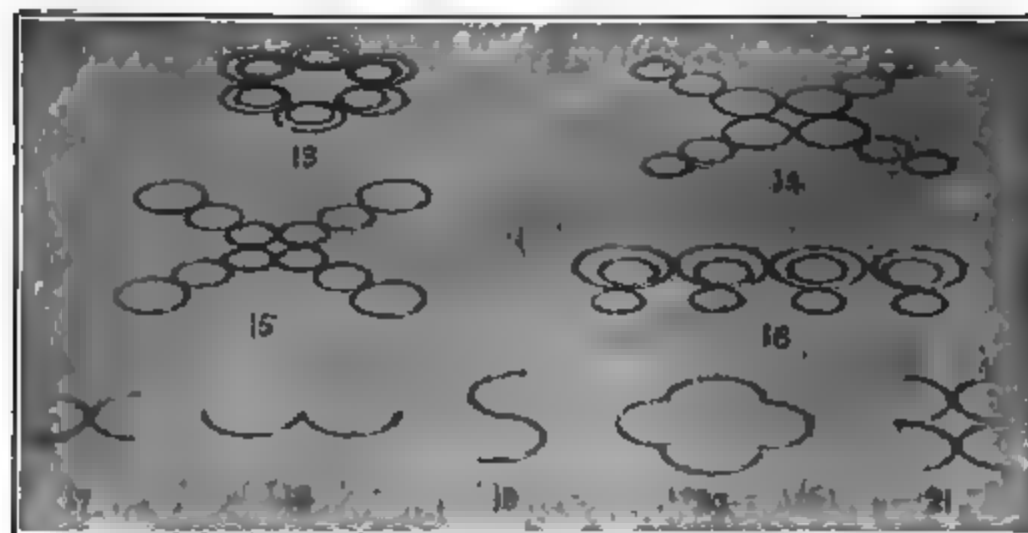


FIG. 54.

Fig. 54 shows four larger illustrations with whole rings, 13 to 16, and the remaining figures, 17 to 21, introduce the half rings

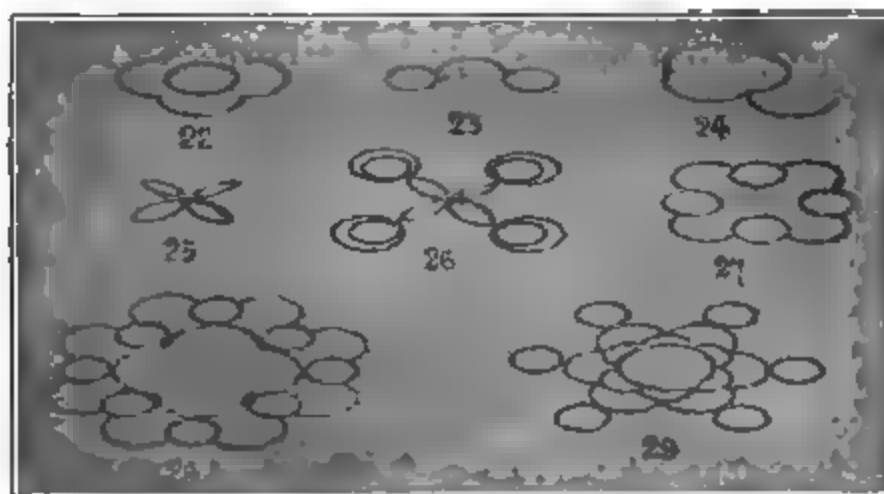


FIG. 55.

No 22 has a whole ring for centre with four halves surrounding.

No. 23.—Eye-glasses.

No. 24.—Clover leaf.

No. 25.—Four halves placed as in Fig. 17.

Nos. 26 to 28 —The whole and half rings are combined to *make these figures.*

CHAPTER XIV.

THREAD-LAYING.

1. Introductory.—Although the material used for this Gift is perhaps the least costly, it is by no means the least valuable. In Sticks and Rings we have the line, and in Thread-laying we have it again, but differing from previous lines in this, that it is not fixed. If we attempted to bend the straight line of the stick, it broke, and the rings were already curved, and were not intended to represent straight lines. Here we have a material with which we can make curved or straight lines at will, and much useful knowledge may be conveyed through this simple medium.

2. Children's fondness for string.—Who does not remember his or her childish fondness for a piece of string or coloured wool! A boy's pocket is never completely furnished unless it contains a little bundle of string to mend his whip or tie up the tail for his kite.

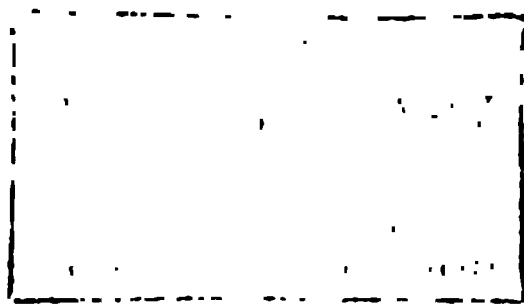
Often we have seen children of both sexes amusing themselves with the game of Cat's Cradle, little thinking that by this simple exercise their fingers were being trained and developed.

3. Materials used.—Thread, slate, pencil and water are needed. The material used furnishes opportunity for many interesting conversations. The thread should be thick, red knitting cotton, which is cut into lengths of about twenty inches and knotted. Older children may learn to tie the knot for themselves, and the lines, following Fig. 56 may be used.

The children will remember the conversations about wool in Gift I., and how it was obtained from the back of the sheep. "Here we have a thread made of another material which you cannot see growing as you saw the wool, for it comes from a country far over the seas. Suppose we went in a ship to one of these warm countries, you would see the cotton growing on a tree, in a snug little pod, and when these pods burst open, and show the pretty white cotton within, people begin to pick them. What kind of people do you think they are who pick the cotton? Their skin is not white like ours, it is black, and they have curly black hair and rows of shining white teeth." They are called negroes, and just as we think kindly of the men who go down into the earth, and get their faces blackened by working in the coal and iron, so must we try to teach the children to think kindly of a race, who are none the less human because their outward appearance differs from ours.

The colour of the thread furnishes another topic of conversation. Reference may be made to the cochineal which provides us with the red colour. Another conversation would arise from the water with which the thread is damped, where it comes from, how useful it is, etc.

In connection with this play the child learns two important facts which were not presented in any of the previous Gifts. Without being troubled with scientific names, he learns that water travels along any hair-like thread (capillary attraction), and also that the wet thread sticks to the slate (adhesion). The teacher might take a piece of the cotton thread and say: "I will place one end of this thread in the mug of water, and you shall see what happens". By-and-by she takes up the thread, and shows the children that it is all wet. "How has this happened?" "The water has travelled all along the thread." "The same thing would occur if the corner of a handkerchief were placed in water. *Why?*" "*Because the handkerchief is composed of threads,*



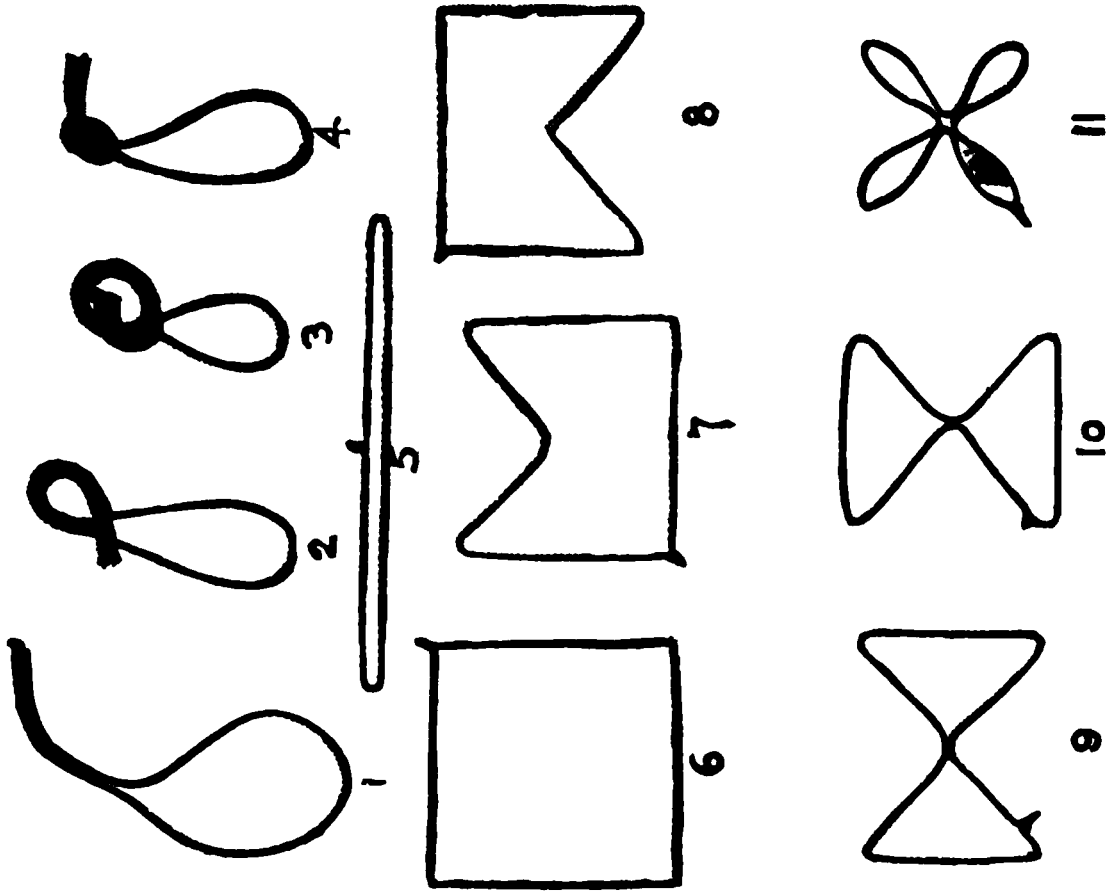


FIG.56.

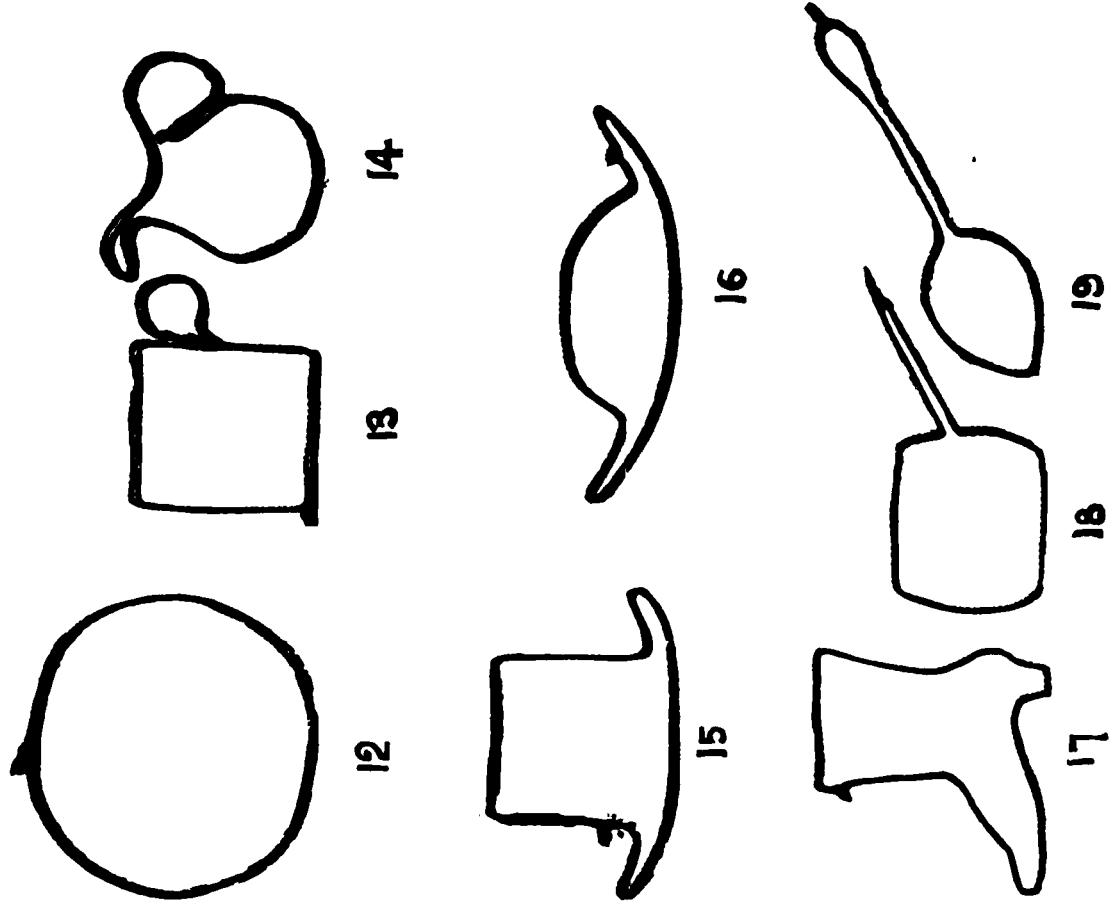
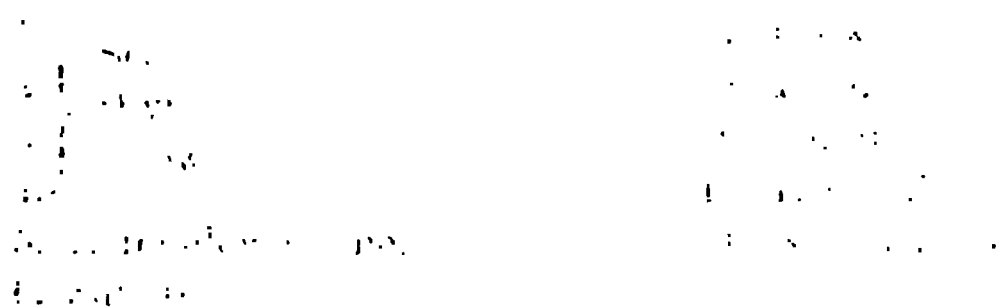


FIG.57.

woven together and the water cannot get in. It should not be thick enough to prevent the water thread from entering the fabric. The fabric should not be too heavy, for as the water comes in contact with the fabric, it will be absorbed. The coating should be porous and have a rough surface so that the water will be prevented from penetrating the fabric. The coating should be able to resist the action of the water and should not be too heavy, for as the water comes in contact with the fabric, it will be absorbed. The coating should be porous and have a rough surface so that the water will be prevented from penetrating the fabric.

1. The first group of people who are interested in the study of the history of the world are the historians. They are people who study the past and write about it. They are interested in the events that have shaped the world and the people who have lived through them. They are also interested in the changes that have taken place over time and the reasons for these changes.



Not a single individual was found to be infected with *Y. enterocolitica*.

As a result, the β parameter is not a good indicator of the degree of the nonlinearity of the system.

Not a single person in the room had any idea what the speaker was talking about.

So, it is not surprising that the following is true:

The children were with the teacher, who was in each step
the teacher did not a length of five seconds.

On making the figures, the surface is to be divided into four by the point of the pencil.

5. 7. A circle is made by drawing the upper side of the circle towards centre.

• **S** Flag, made by pushing lower side of the square to centre.

9. **Drum-head.** Both upper and lower sides polished.

10. Eng-holer. Right and left sides pushed to centre.

11 All the sides drawn to centre.

FIG. 57. (S. o. colored in life.)

- | | |
|---------------|---------------|
| 12. Circle. | 16. Soft Hat. |
| 13. Mug. | 17. Boot. |
| 14. Jug. | 18. Fan. |
| 15. Tall Hat. | 19. Spoon. |

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woven together, and the water travels along them. We should not be able to make nice figures on the slate, if the thread were not wetted." This Gift is an excellent preparation for drawing, for besides giving the outline of forms, it teaches also lightness of touch. The outline of the form can be preserved by drawing round it, or if the thread be allowed to remain in position until it is dry, and then be removed, it will leave the *outline* of the figure on the slate, which the child may trace over with its pencil.

FIG. 56. (See Coloured Plate 4.)

- | | | |
|---------------------|--------------------------|-----------------------|
| 1. | } See
rhyme
below. | 7. Crown. |
| 2. | | 8. Flag. |
| 3. | | 9. Dumb-bell. |
| 4. | | 10. Egg-boiler. |
| 5. Lying-down Line. | | 11. Symmetrical Form. |
| 6. Square. | | |

No. 1.—The two cord ends together bring,

No. 2.—Then twist them round to make a ring,

No. 3.—Behind the ring the two ends go,

No. 4.—And then we pull them through you know.

The children work with the teacher, who shows each step on the blackboard, with a length of wet string.

In making the figures, the string is to be moved into position by the point of the pencil.

No. 7.—A Crown, made by drawing the upper side of the square towards centre.

No. 8.—Flag, made by pushing lower side of the square towards centre.

No. 9.—Dumb-bell. Both upper and lower sides pushed to centre.

No. 10.—Egg-boiler. Right and left sides pushed to centre.

No. 11.—All the sides drawn to centre.

FIG. 57. (See Coloured Plate 4.)

- | | |
|---------------|---------------|
| 12. Circle. | 16. Soft Hat. |
| 13. Mug. | 17. Boot. |
| 14. Jug. | 18. Pan. |
| 15. Tall Hat. | 19. Spoon. |

A multitude of other forms will suggest themselves to the teacher, and the children will be found to invent freely in this simple play, and will amuse themselves for hours at home in constructing fresh figures.

The oval, triangle and hexagon are excellent foundations from which to start, the latter lending itself especially to construction of forms of beauty.

CHAPTER XV.

DRAWING.

i. Introductory.—There are two reasons why Drawing plays an important part in the child's development.

(a) It is a preparation for the real afterwork of life ; there is scarcely a trade or profession in which the need of drawing is not felt. Just as the builder draws plans before making his house, so the dressmaker finds it helpful to draw the pattern she wants to cut, and the same is true of every branch of industry.

(b) It satisfies the child's natural desire to represent, produce, create ; as Fröbel says, " It is in drawing, particularly, that the child proves himself to be a free and capable being," and able, therefore, to create. Children love to look at pictures, and, better still, to have pictures drawn for them, no matter how rude the representation, and when a little story accompanies the drawing, the pleasure is greatly increased. The child likes to outline its own little hand, or a coin, or ring, and we have seen children drawing figures on a misty window-pane, in the sand, or even with milk spilt on the table. These rough attempts should not be checked, but encouraged by providing better material ; for, just as we like to express our thoughts in words, so does the child like to express his ideas in drawing. The Chinese and Egyptians wrote in symbols and forms, and the early history of the child, like the early history of these nations, shows the same tendency to express itself in symbols. We

are not surprised to learn that Fröbel found means to satisfy this innate desire on the part of the child to draw.

2. Materials for Drawing.—The materials needed are a slate ruled in squares, and a pointed pencil. The crude spontaneous drawing of the child should now be succeeded by more methodical attempts. The slate should not be made of tin, or wood, with red or white squares painted on it, but it should be a real slate, so marked that the lines are grooves, in which the pencil can be guided. Our aim is not to get perfect work from the child, but to make the work a means of development. It is not necessary to make one set of lines perfectly before proceeding to another set. One row of standing-up lines is quite sufficient for the child to make at one time, and if these are named “little soldiers,” as in the writing lesson, or “little children all standing in a row,” the interest will be greater. When we come to lying-down lines, the little children have gone to sleep, and are represented as lying with one square between each. A great many of the objects formed with sticks (see illustrations of Stick-laying) may be drawn. Then come the com-

FIG. 58, p. 110.

binations of standing-up and lying-down lines, which are shown in the illustrations. Many of these the children will find out for themselves, and we must remember that what the child produces himself is a greater aid to his development than any number of patterns copied. There is no Gift in which the child has more scope for invention than in drawing. Many and beautiful are the designs which the little fingers produce, unaided, after they have been through the course of Drawing, which here follows

FIG. 59, p. 111.

Slanting Lines.—Next come slanting lines, which cut the squares in halves diagonally.

First we have a row sloping downwards from left to right, then a row sloping upwards from left to right.

The two kinds of lines are next combined, first into a kind of herring-bone pattern, and then into diamonds, and lastly longer slanting lines are used.

The children will make patterns for themselves much more numerous and varied than we have space to show.

Figs. 60 to 63, pp. 112, etc.—These four figures show how the three kinds of lines, vertical, horizontal, and slanting, can be combined to make fresh designs.

Fig. 64, p. 116.—In this figure lines of two lengths are used.

Figs. 65 and 66, pp. 117 and 118.—Half-slanting lines. The half-slanting lines should not be given until the child has had drawing lessons for a considerable time, and has acquired dexterity in using the pencil to produce firm, clear lines.

Figs. 67 and 68, pp. 119 and 120.—These show how the half-slanting lines may be combined with the lines previously learnt to produce many charming figures.

Figs. 69 to 72, pp. 121, etc. **Curved Lines.**—In the four figures shown, the curved line is introduced, and various examples are given of the way in which these lines may be combined with each other to form pretty designs. First the curves are only one square long, then they are taken over two squares, and so on.

Fig. 73. (See Coloured Plate 5.)—Design made with straight lines.

Fig. 74. (See Coloured Plate 5.)—Design made with curved lines.

Colouring.—Long before the child has gone through this course of drawing, he may be allowed to colour his little productions. Crayons can be purchased at very little cost, and nothing gives more pleasure to a child than to be allowed to work with colours. Specimens of colouring are given, Figs. 73 and 74.

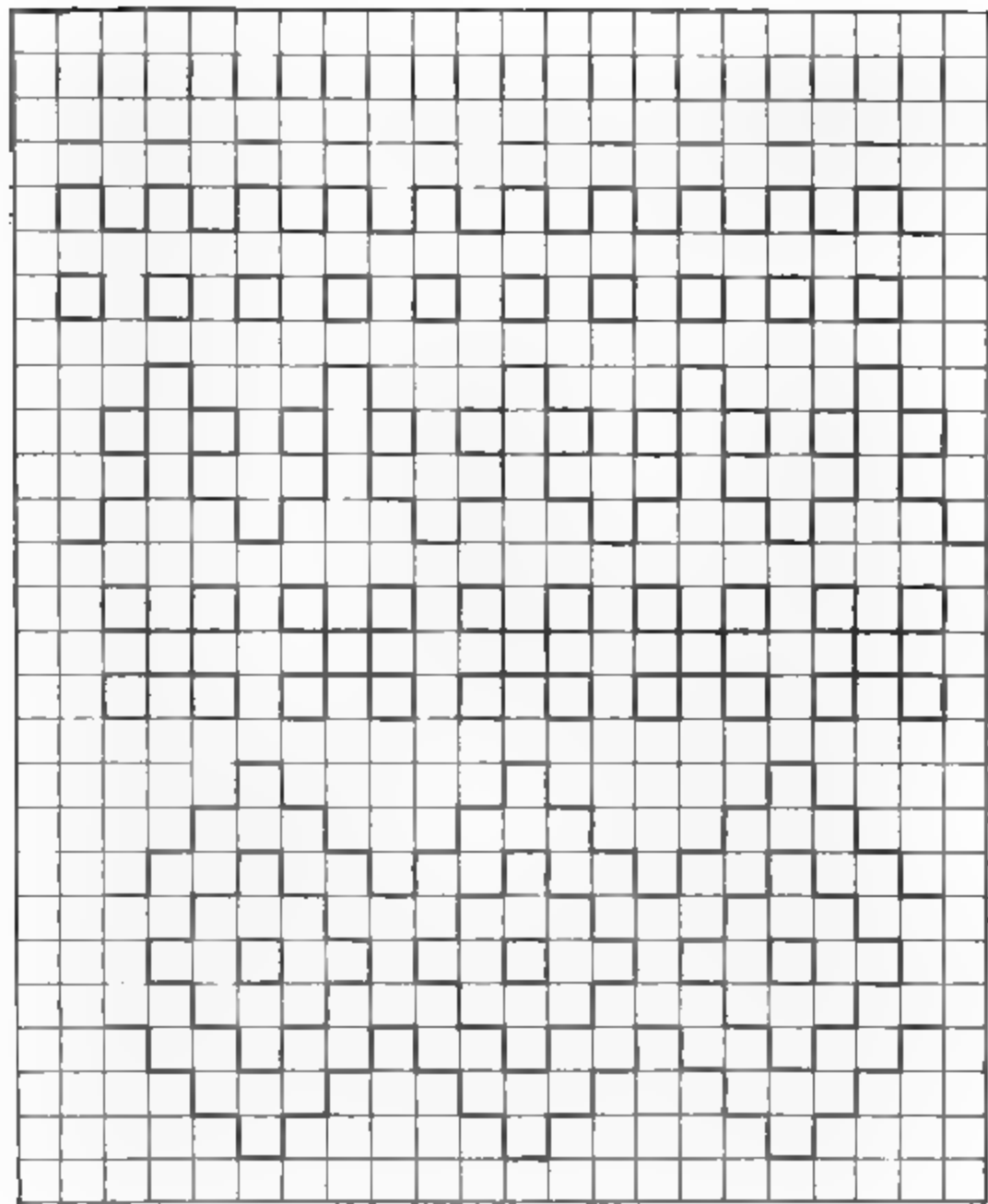


FIG. 58.

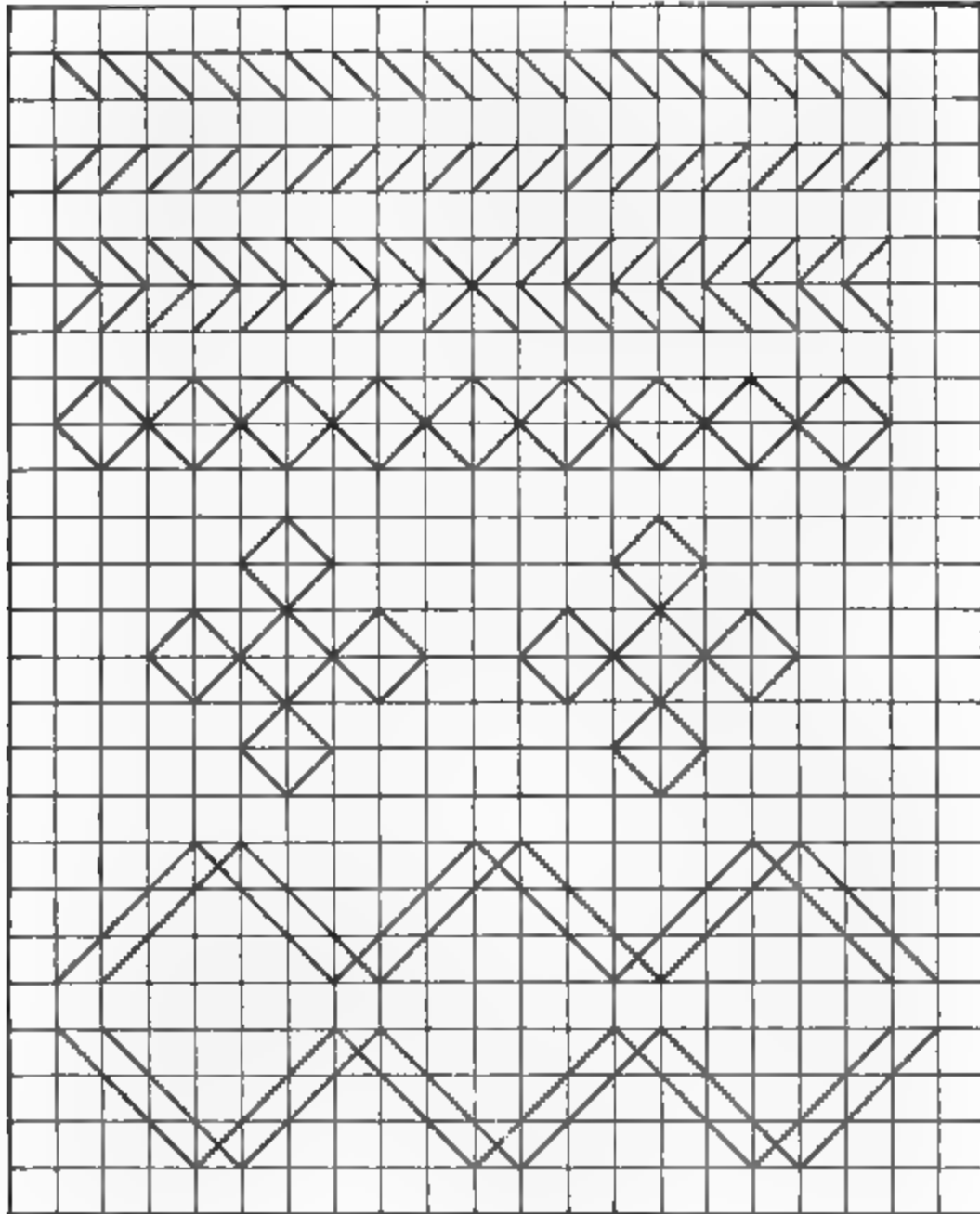


FIG. 59.

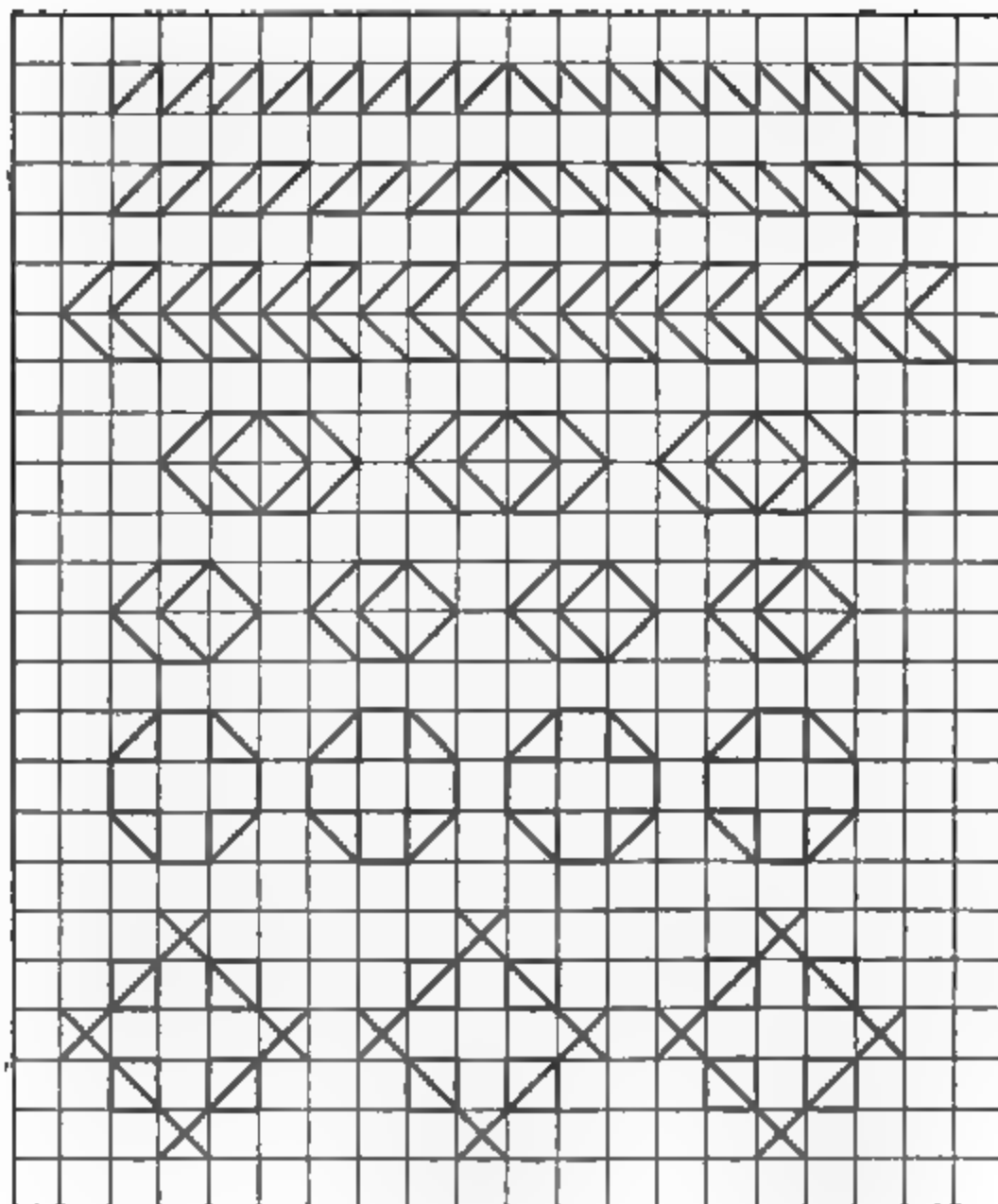


FIG. 60.

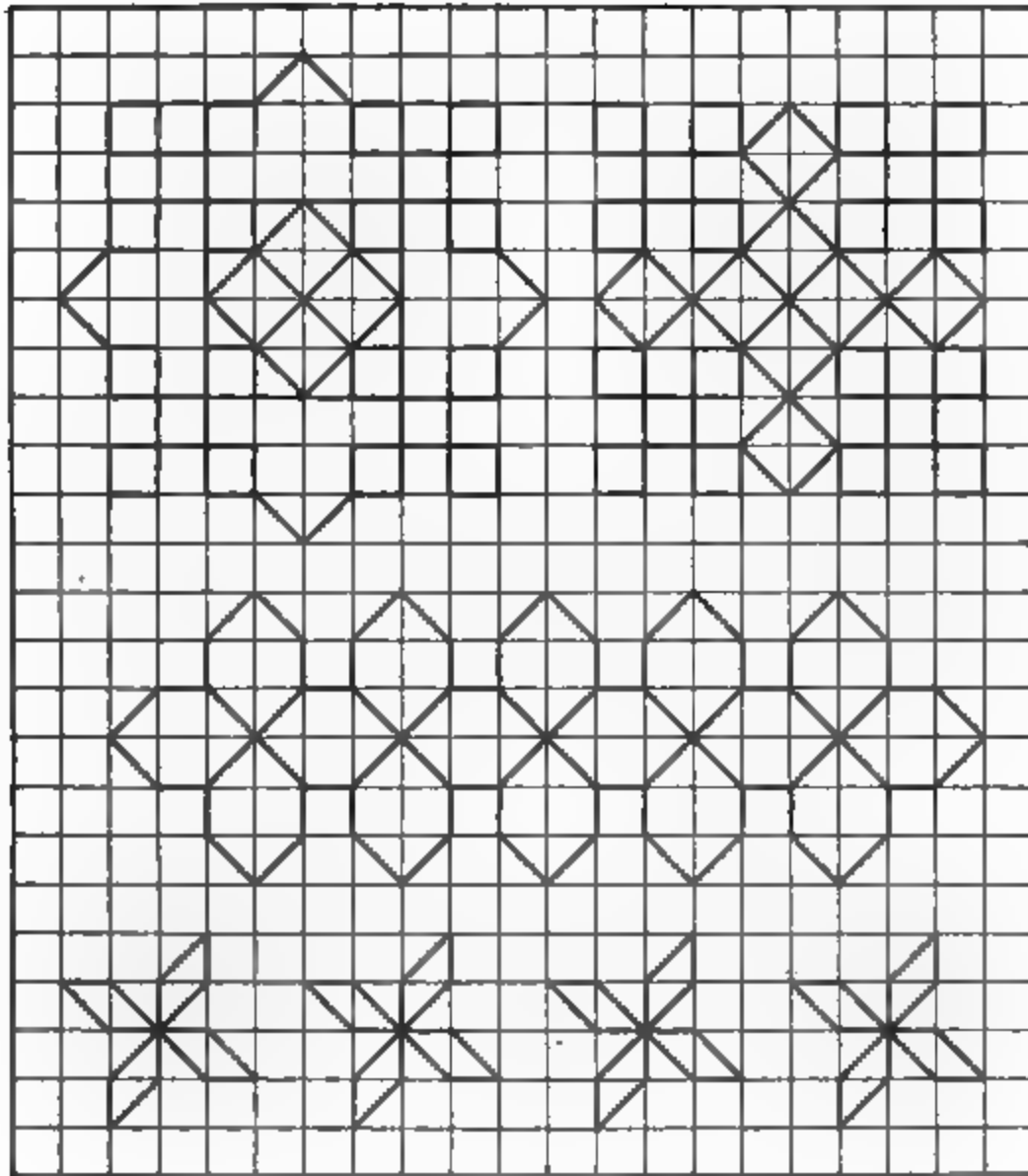


FIG. 61.

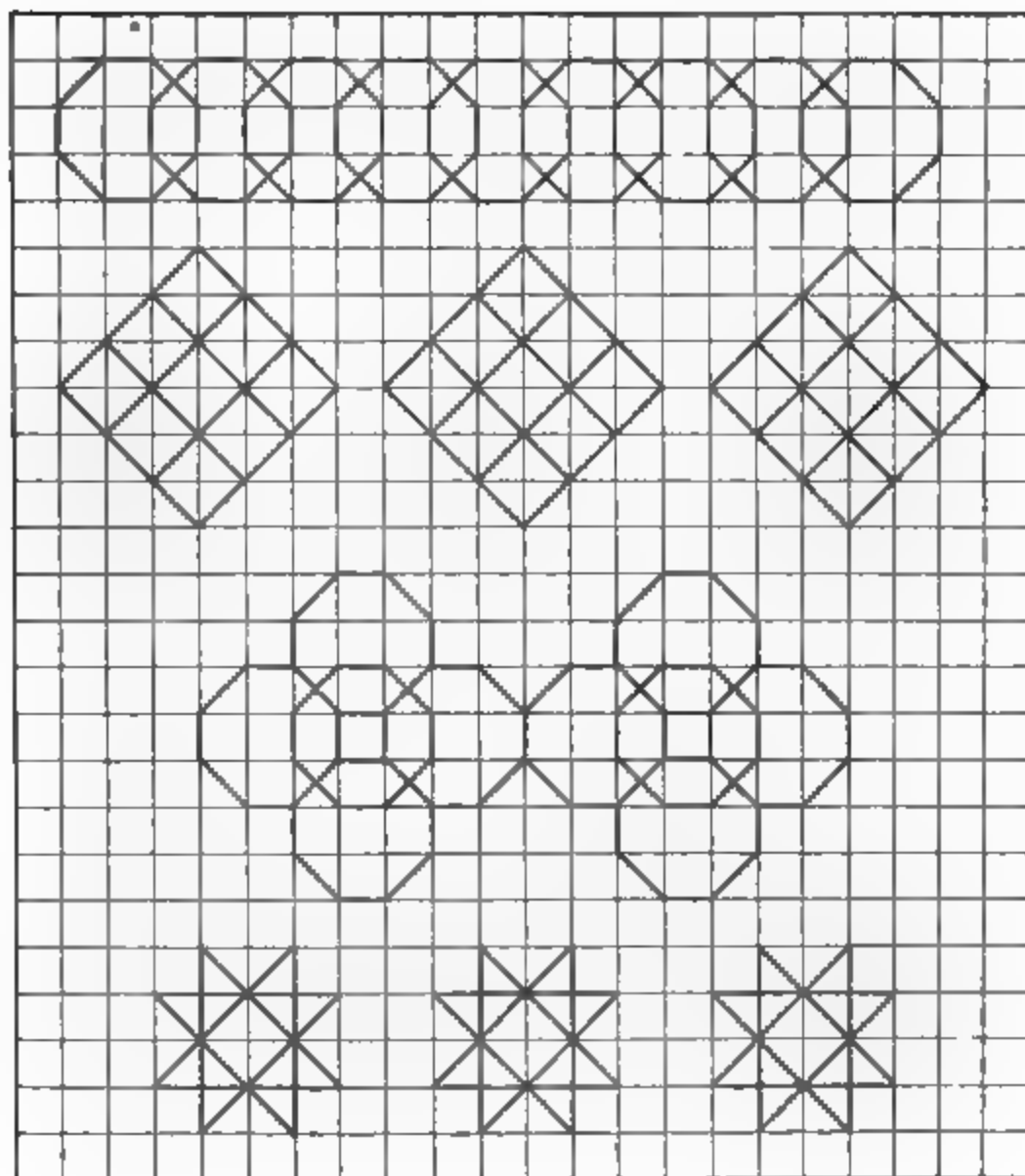


FIG. 62.

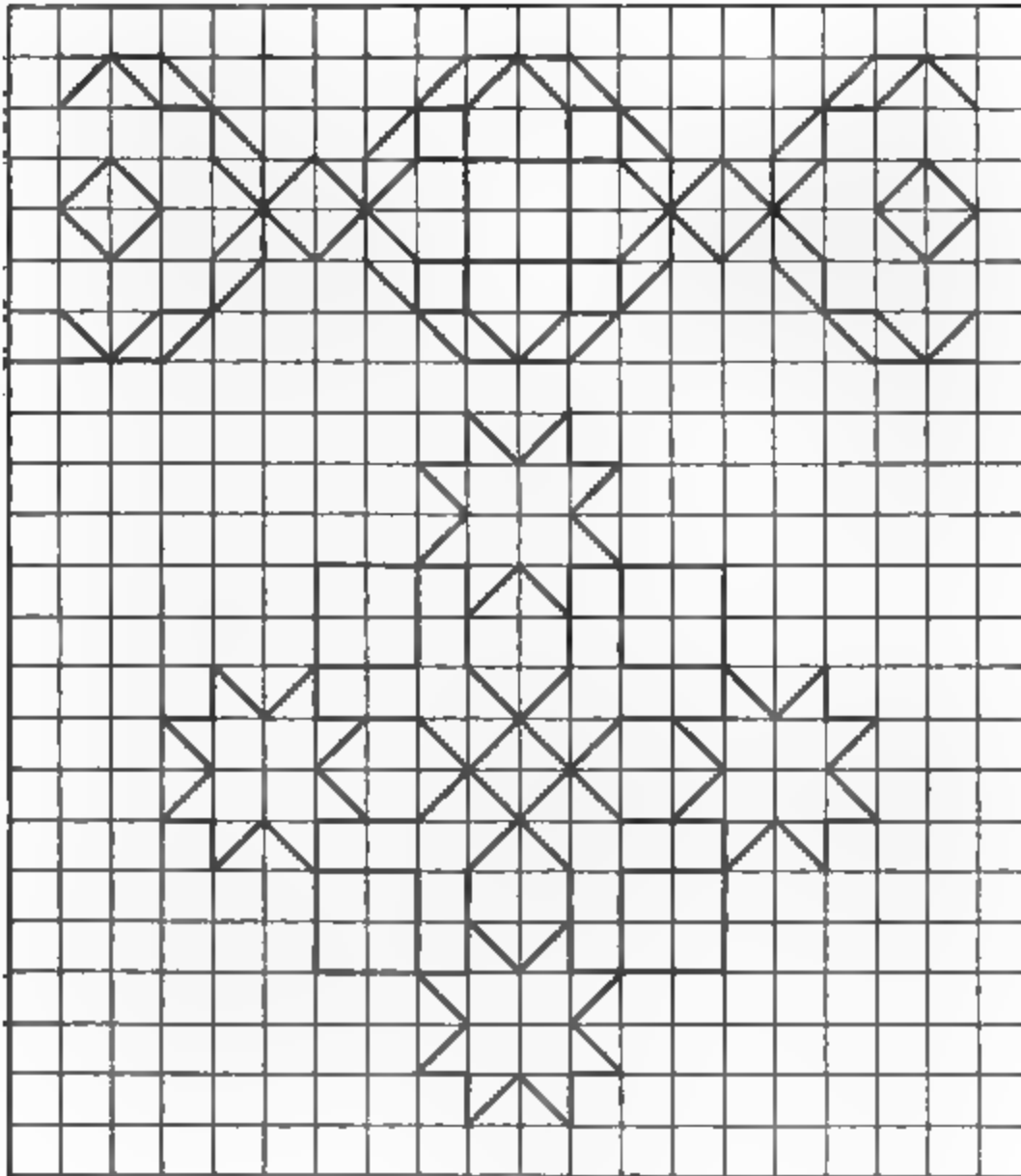


FIG. 63.

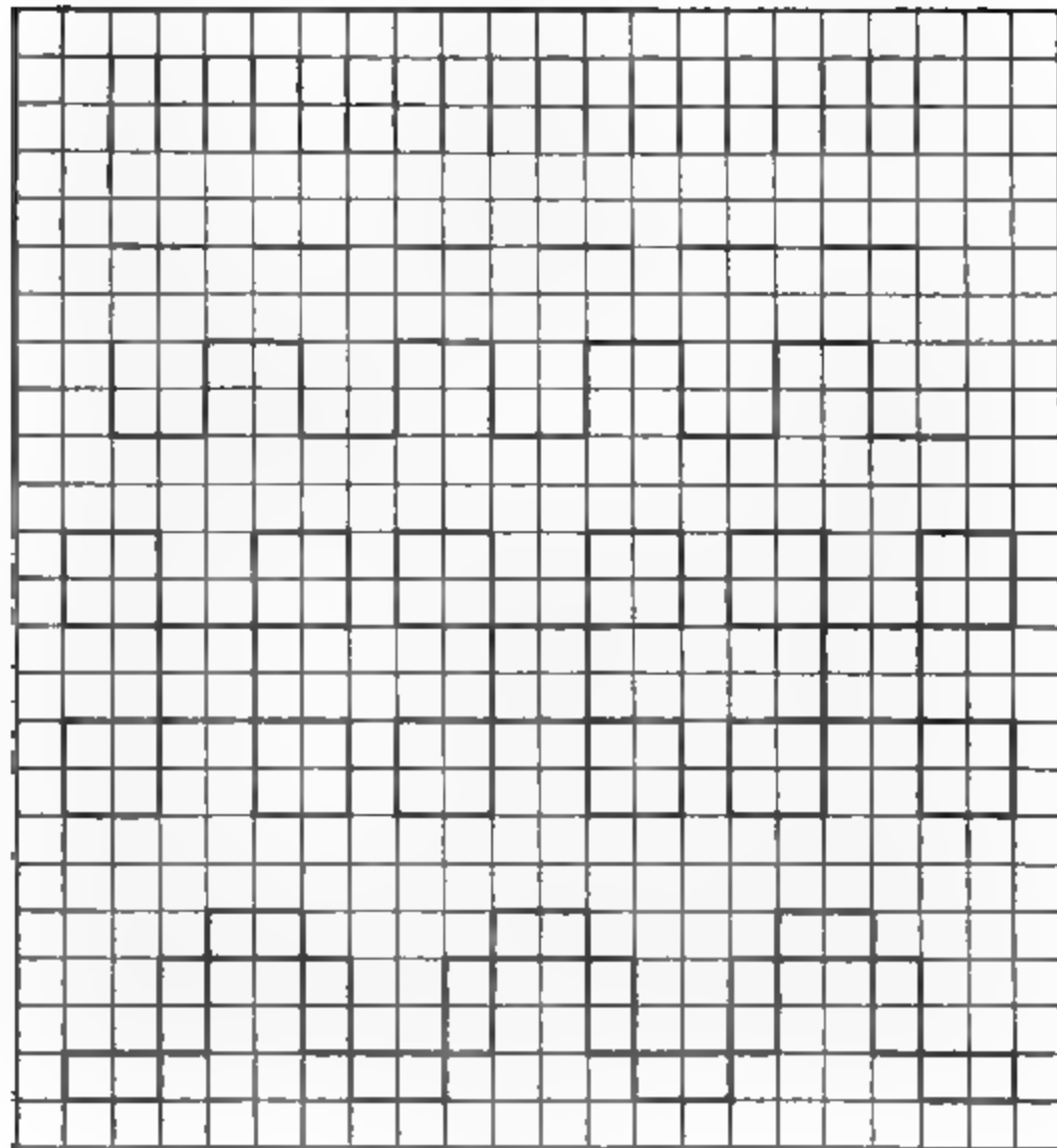


FIG. 64.

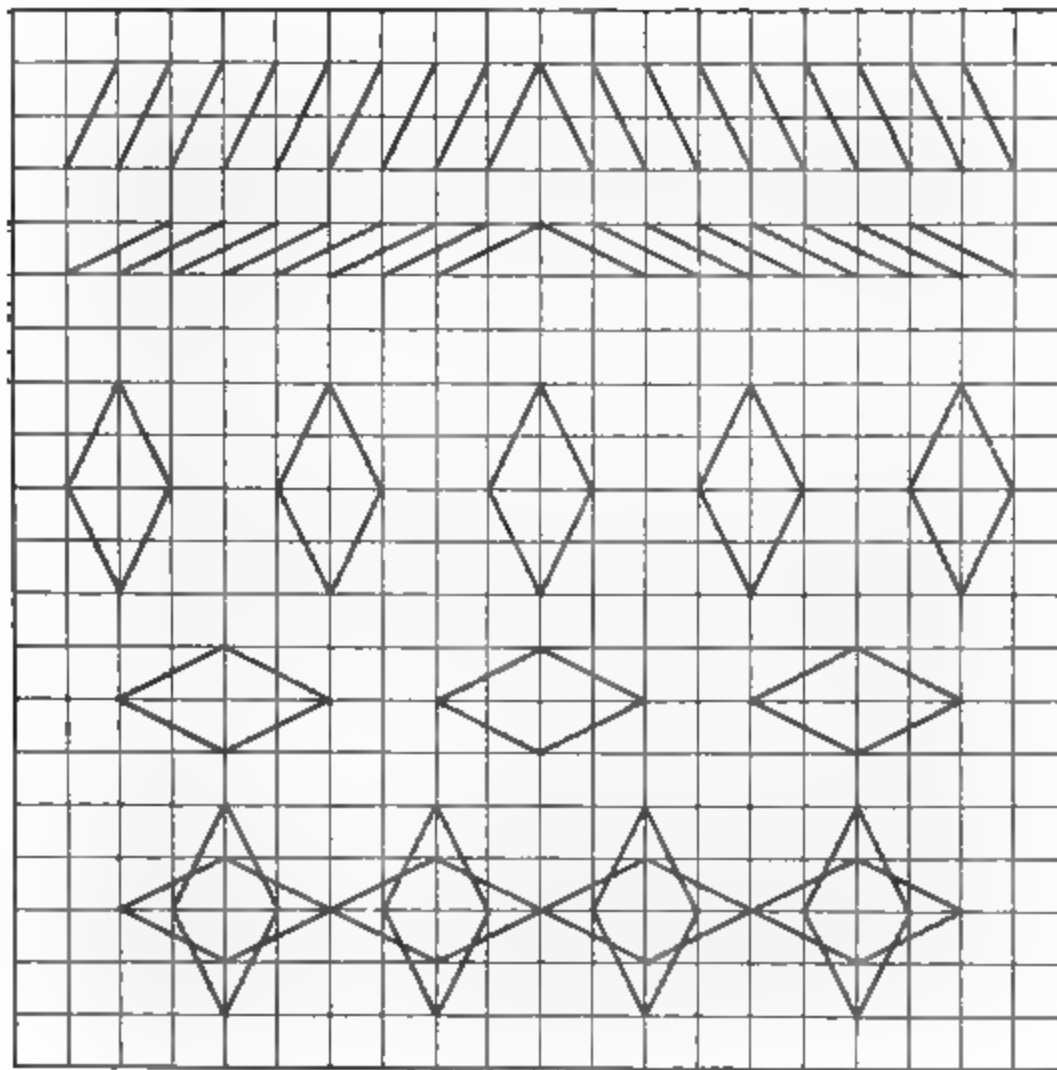


FIG. 65.

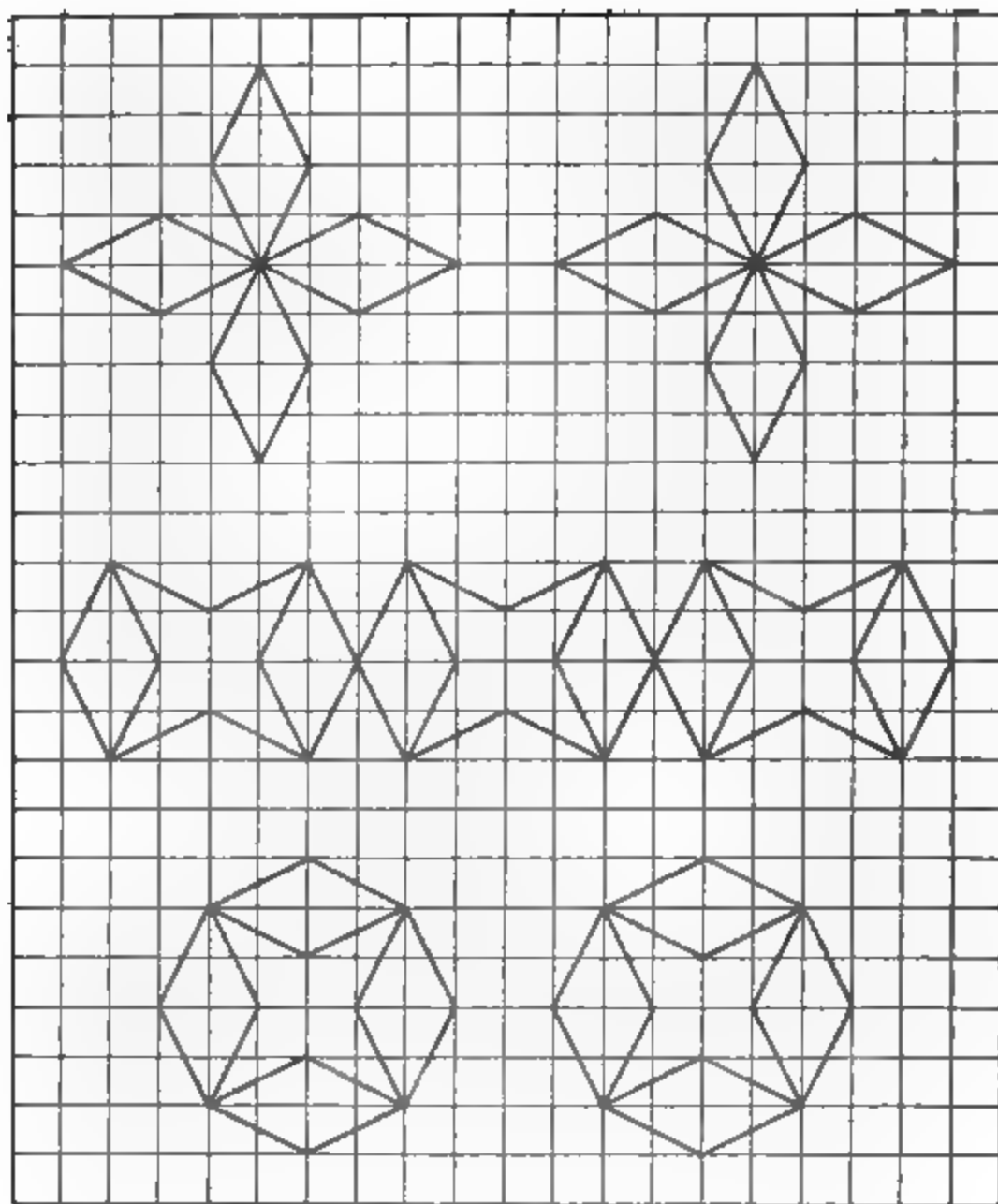


Fig. 66.

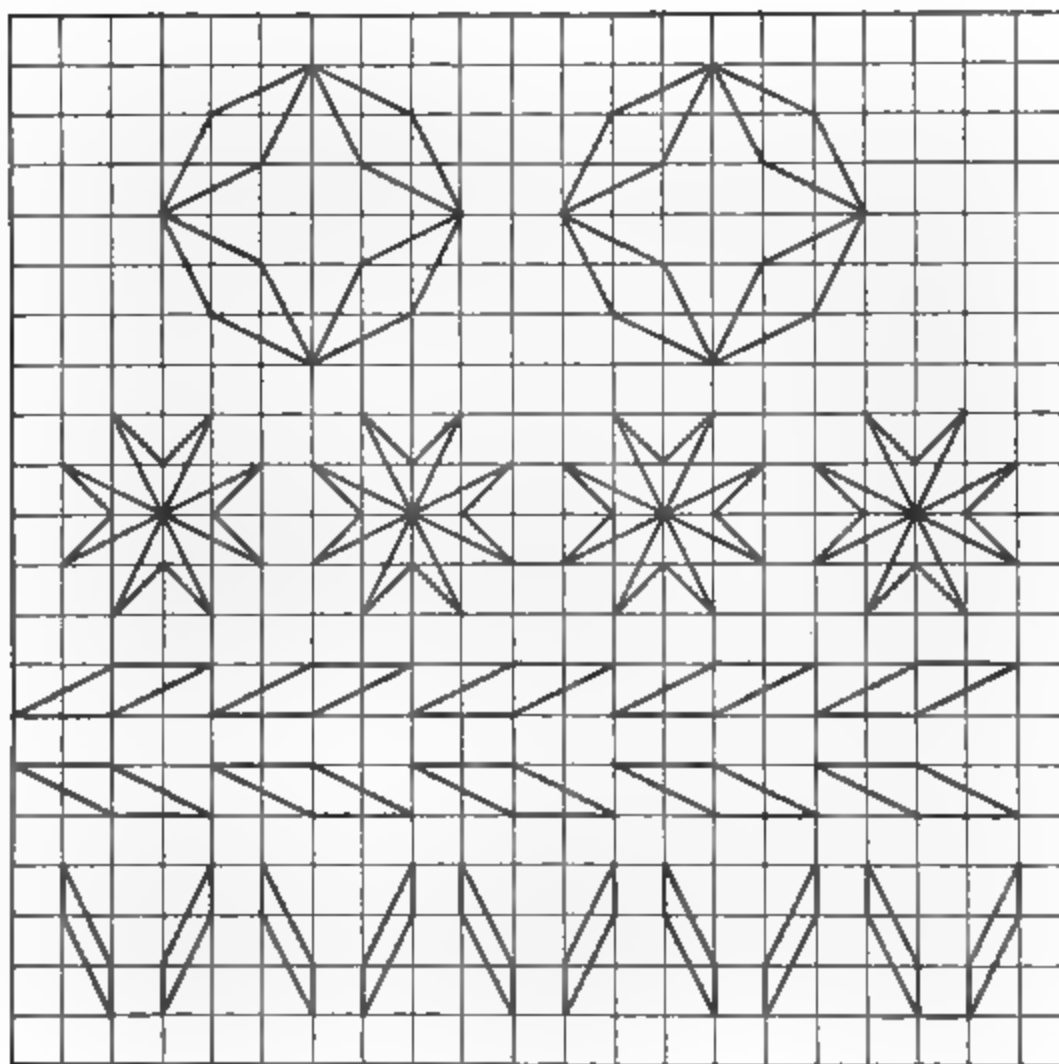


FIG. 67.

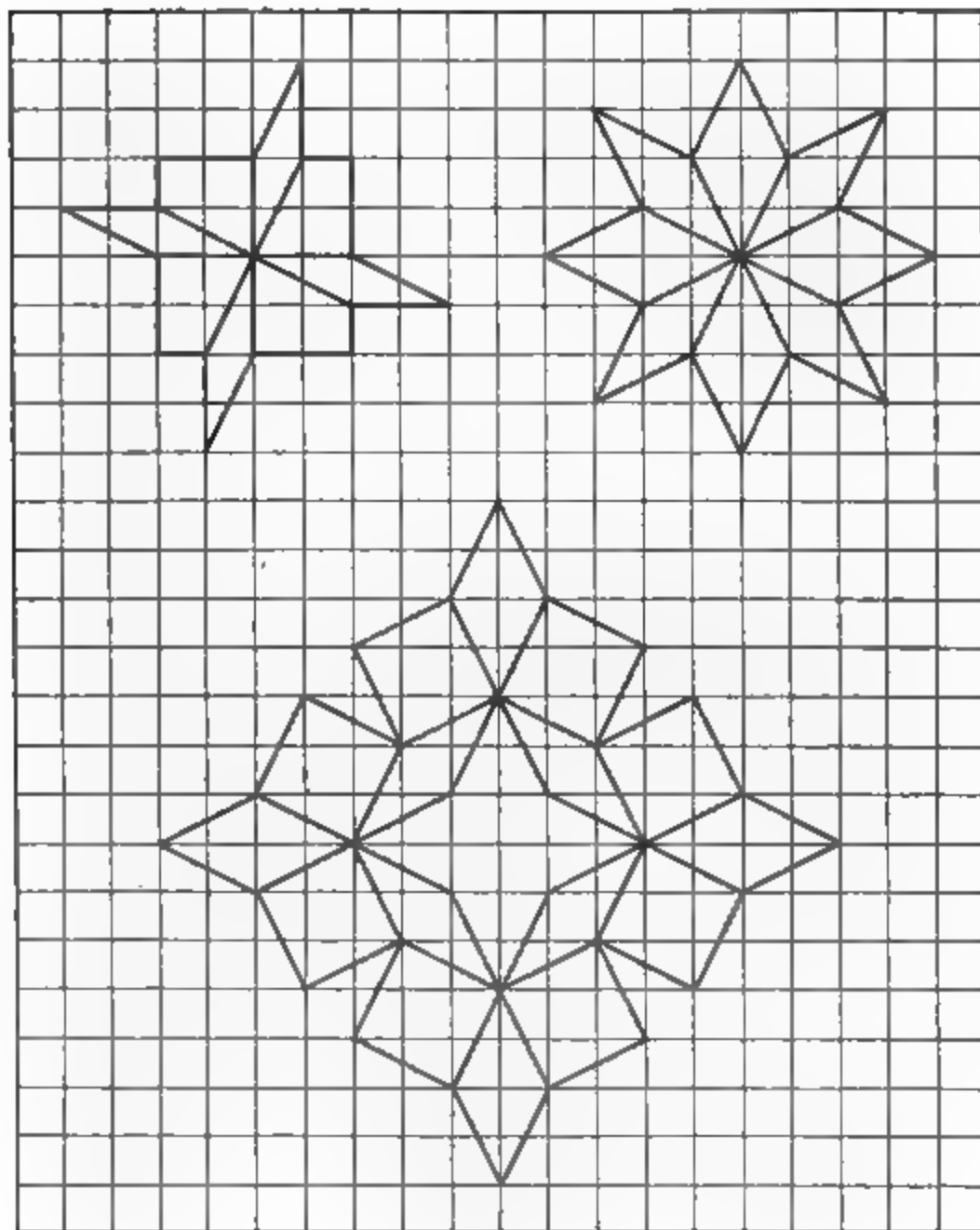


FIG. 68.

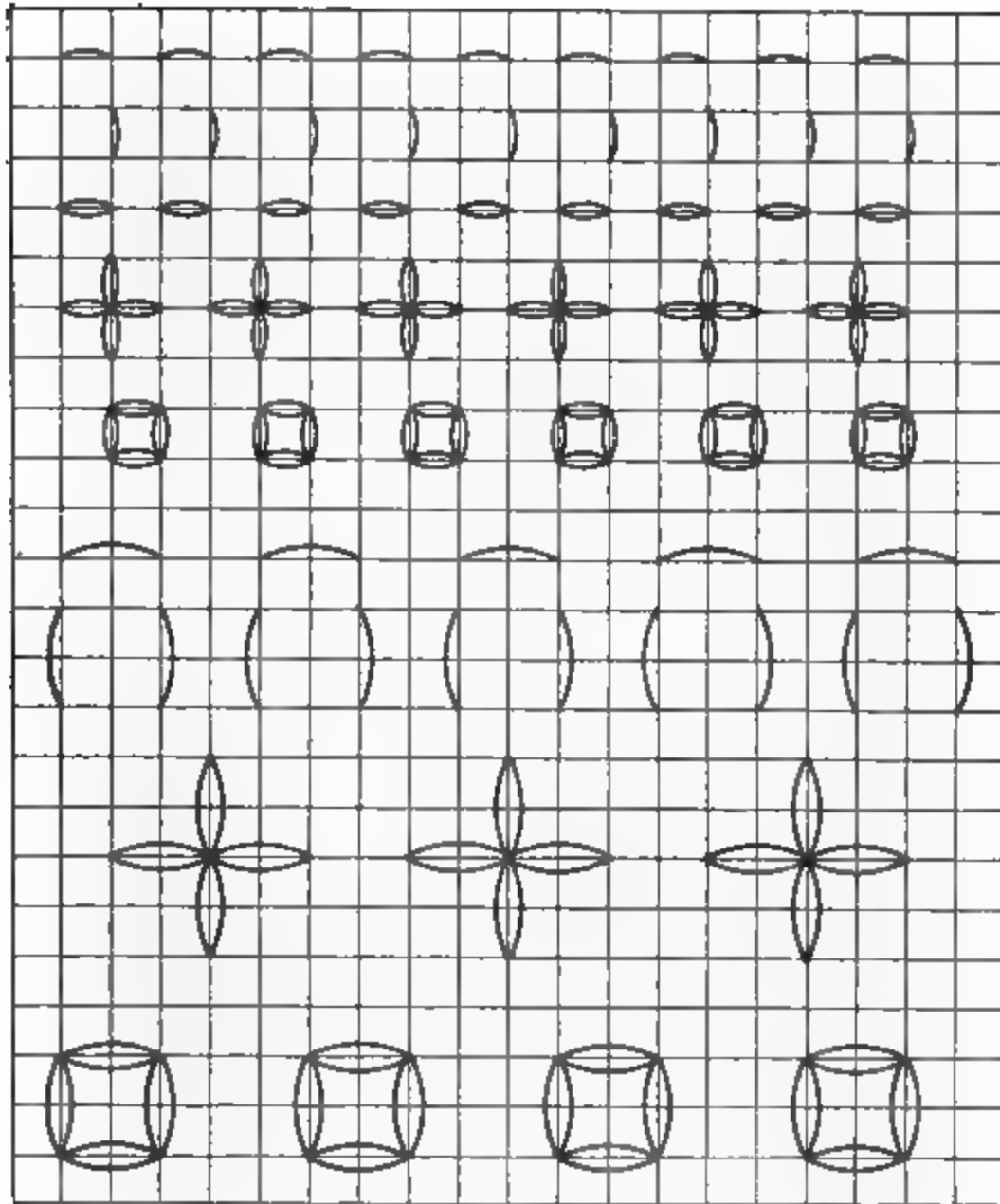


FIG. 69.

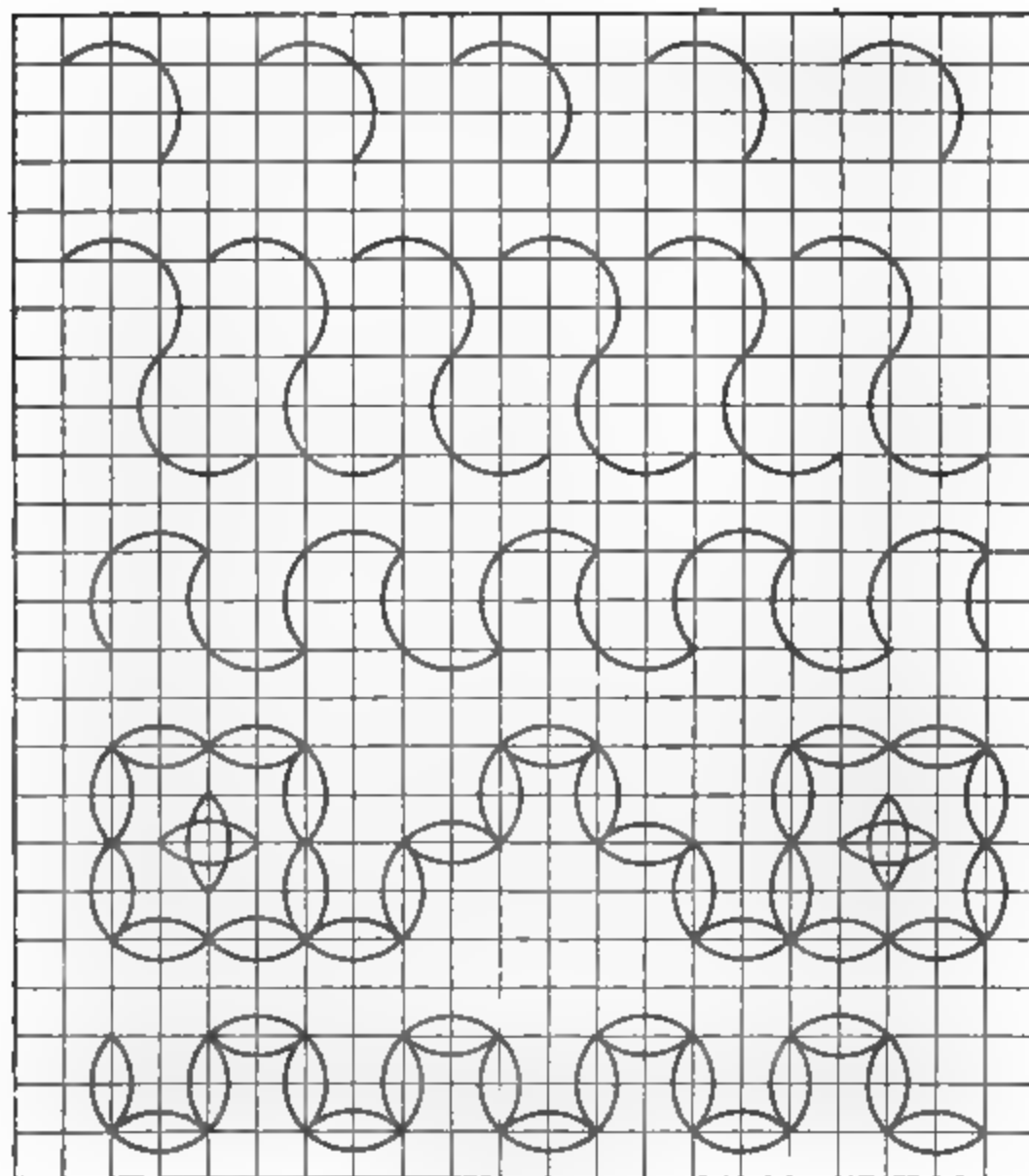


FIG. 70.

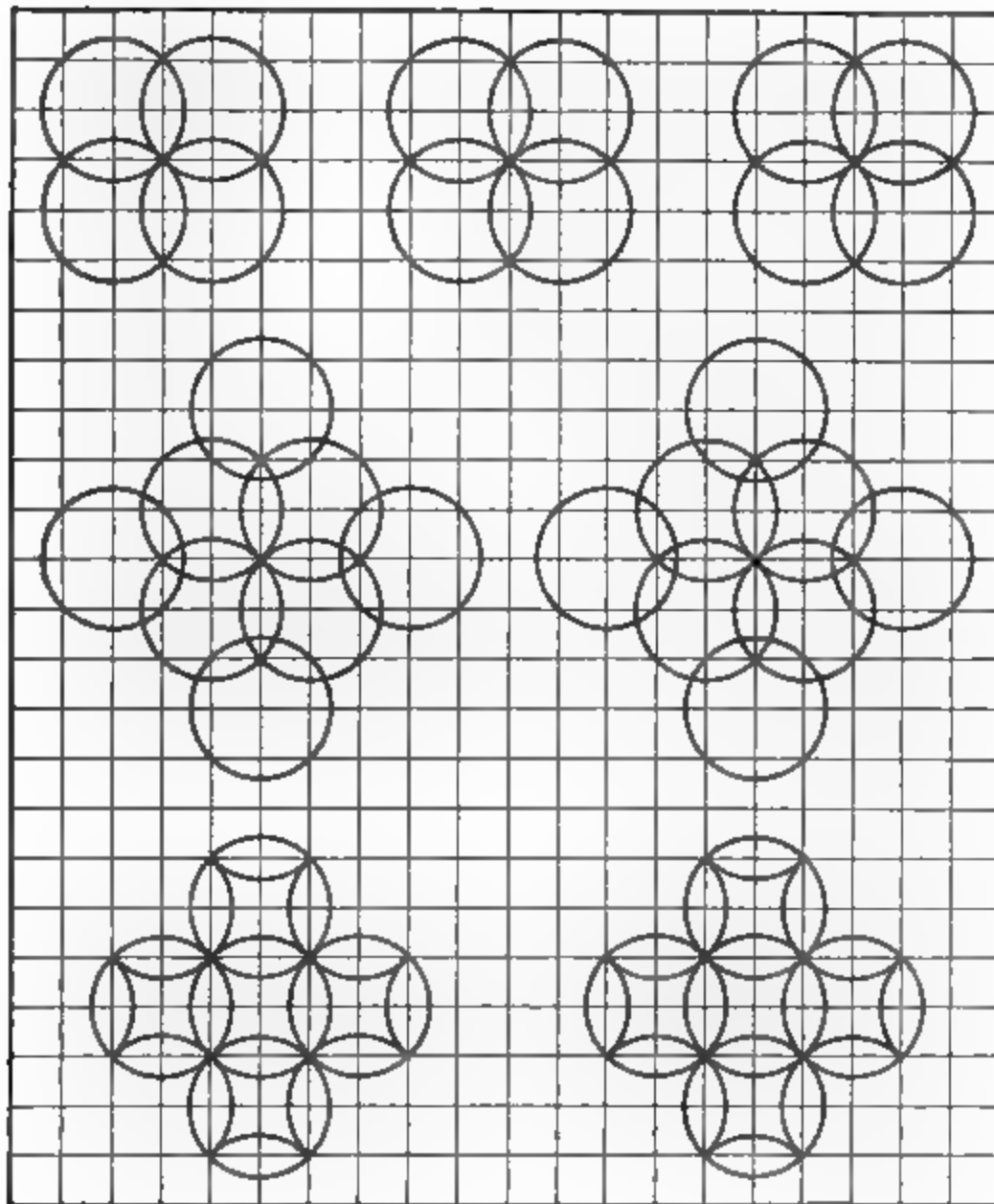


FIG. 71.

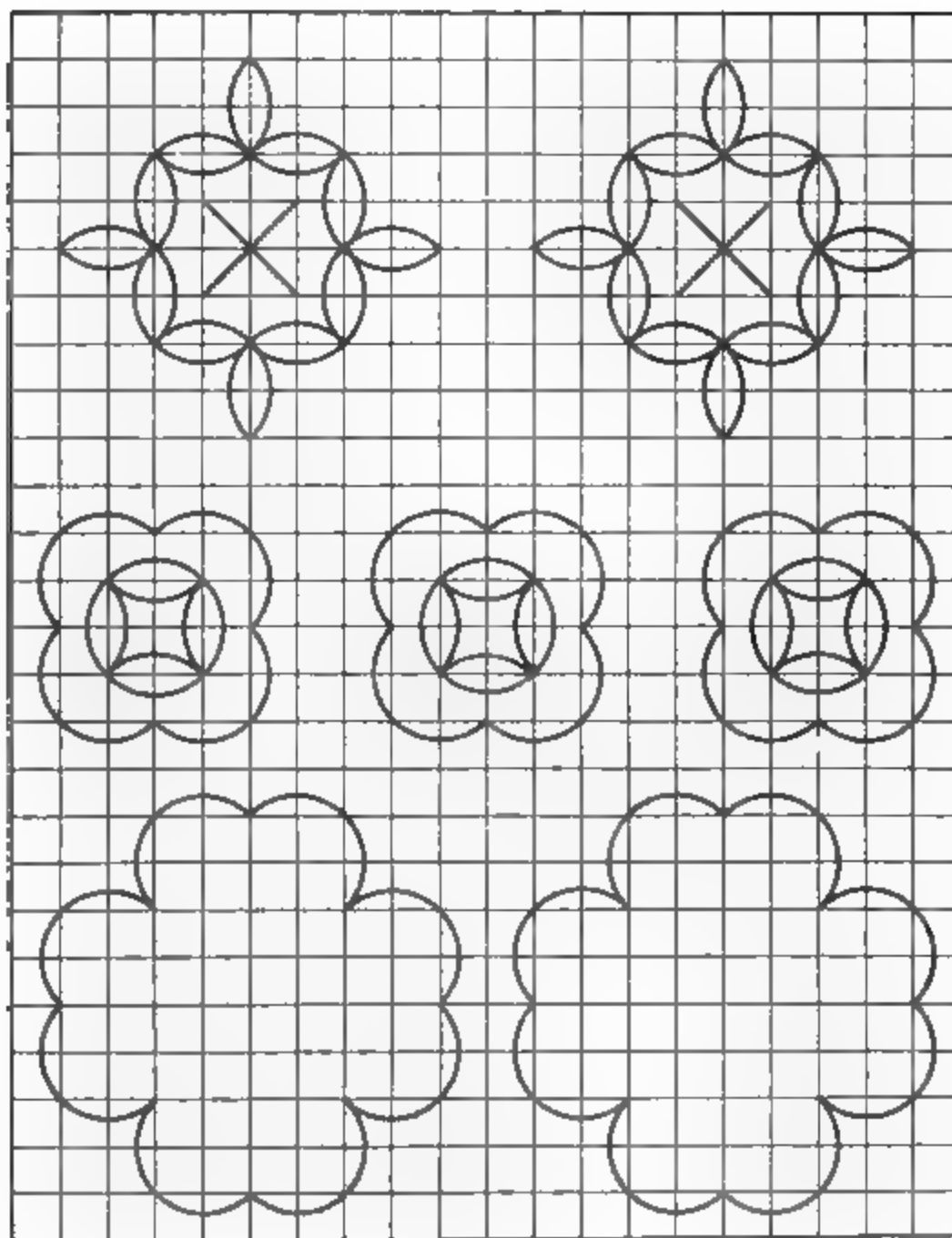


FIG. 72.

Stencilling.

Stencilling is a somewhat mechanical occupation, but it requires thoughtfulness and care to do it neatly, and it affords pleasure to the child. The pattern is cut out of the cardboard, probably by machinery, Fig. 75. Stencilling cards of various designs can be obtained in packets. The card is placed over a piece of blank paper or cardboard, and secured by drawing-pins; or, the blank paper may be cut a little larger than the Stencilling Card, and then its edges may be folded over the latter to keep it in position. A finely pointed pencil is needed, otherwise the lines will not show clearly through the perforations. The pencil should be passed carefully along every slit, and pressed sufficiently to make a good, firm line. Then the card is removed, and the drawing appears on the paper, Fig. 76. The border might also be drawn if desired.



FIG. 75. - Stencilling.



FIG. 76.

Fröbel's Drawing.—Fröbel found that a child has very little idea of the relative size of things; he will, for example, make a man just as high as a house. Nothing could be simpler than the method which the great educator uses to teach the child proportion of things. Five lines of different lengths are used, arranged in every possible position, Fig. 77, p. 127.

To make the lesson interesting a little story may be given, in which the lines are introduced as objects of various sizes, thus: the first line is a very little one, so we will call it Baby's stocking. The next is longer, that shall be little Sister's stocking; the third shall be the Brother's, the fourth the Mother's, and the fifth the Father's stocking.

In No. 1 the Baby's stocking is first and the Father's last.

In No. 2 we draw the long line first and the short one last.

No. 3 begins with the short line, hanging from, instead of resting upon, the line, and you will notice that each "stocking" hangs down one square lower than the one in front of it.

No. 4 shows the long stocking hung first, and the short one last.

No. 5 shows preceding figures combined, and the four right angles are in the centre.

No. 6 has the four right angles outside. The talk about the stockings may still be continued in these larger figures.

No. 7 is the opposite of No. 6.

No. 8 shows a form representing a windmill.

These are only a few illustrations of a great number of ways in which these lines can be used. After the vertical lines come the horizontal, which are used in precisely the same way. Then the vertical and horizontal lines may be combined.

No. 9 shows the longer lines in the centre.

In No. 10 the small lines are in the centre, and this illustration shows also the relative sizes of squares. The same principle can be carried out with slanting lines.

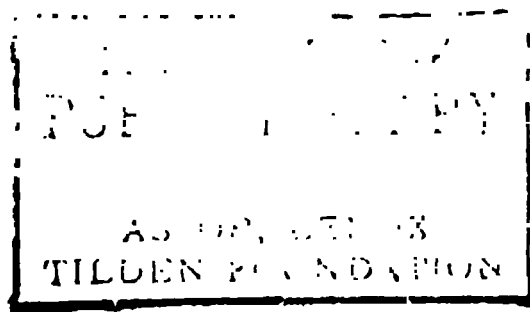


FIG. 73.

PLATE. 5,

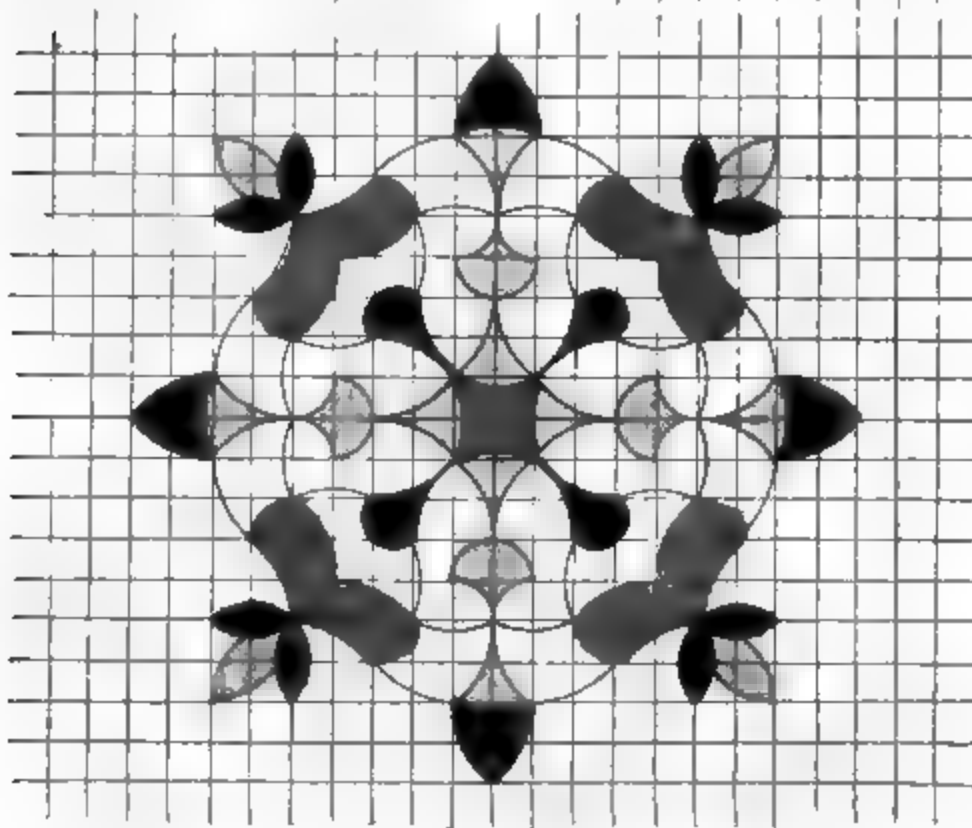
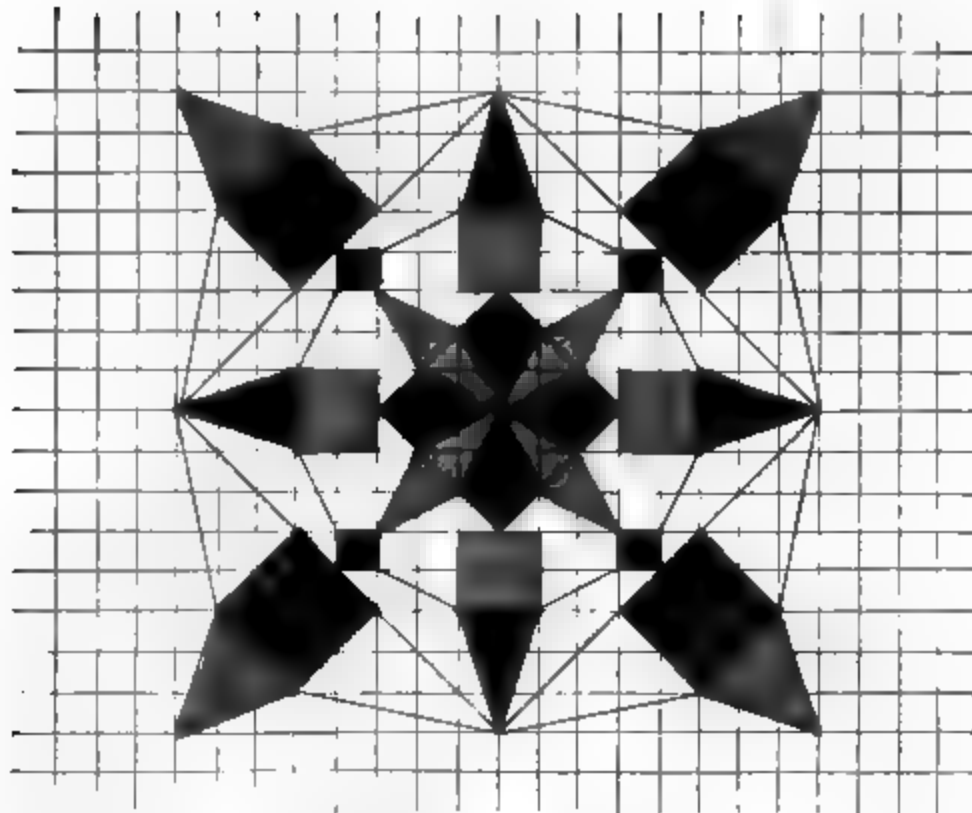


FIG. 74

DRAWING

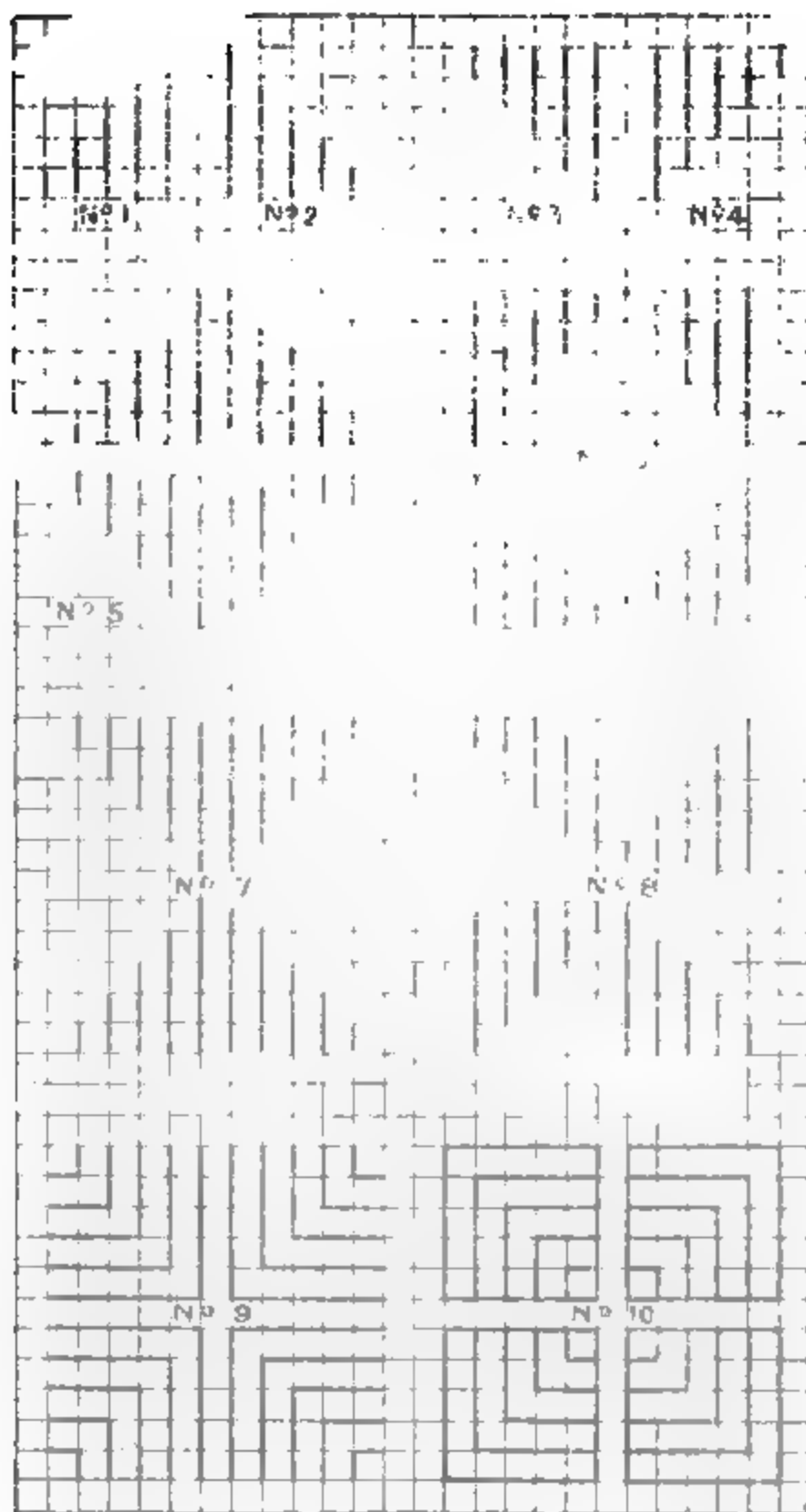


FIG. 77.



FIG 74

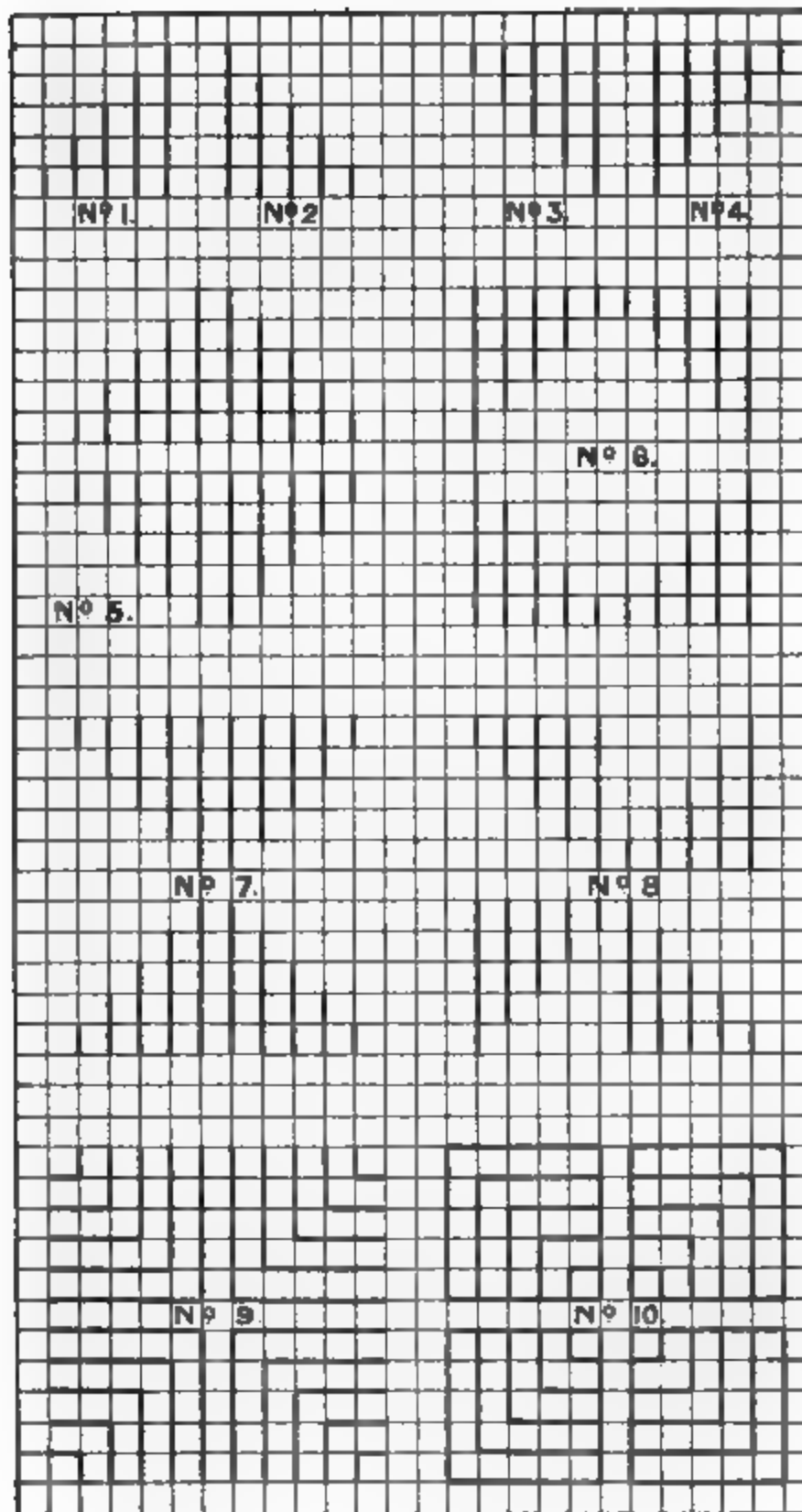


FIG. 77.

CHAPTER XVI.

BEAD WORK.

1. Introductory.—As we have used various materials to represent the embodied edge of the plane surface, so, in this Gift, we represent the embodied corner. The representation is doubtless more or less crude, for the point is hardly a tangible or visible quantity. But if we can manage to convey to the child's mind a clear idea as to its position, something will have been gained.

2. Materials used.—Beads, lentils, peas or beans may be used, or the shells, referred to in the chapter on Number. Children are always fond of marking out, and enclosing spaces with objects of this kind, to make "gardens," "parks," "houses," etc. A conversation on the object to be used will add interest to the lesson. The beads or seeds should be placed in little boxes or "patty" tins; the paper box shown in Fig. 79, No. 7, is very useful for this purpose, and the method of making it is fully illustrated in Fig. 103, Paper-folding, p. 160. Suppose the boxes to be placed at the end of each desk, they may be passed while the following lines are repeated or sung:—

KEY D.

{ : m.r | d : -.r:d | d : m : s | f : l : d' | d' : — : t.l }

Some nice, pretty box - es of beads read - y stand, And

{ | s : f : m | r : d : r | m : — : m.r | d : -.r:d | d : m : s }

please, will you pass one to me? From one to an - oth - er with

{ | f : l : d' | d' : — : t.l | s : d : m | r : -.d:r | d : — || }

care they must go, Up - set - ting would spill beads you see.

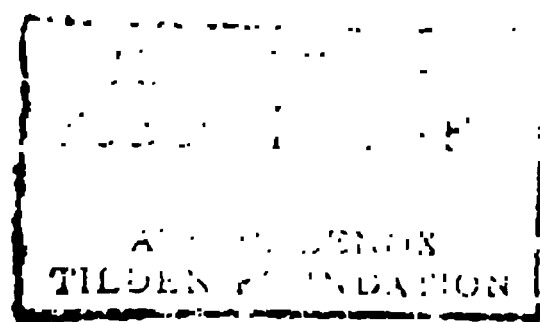


FIG. 78.

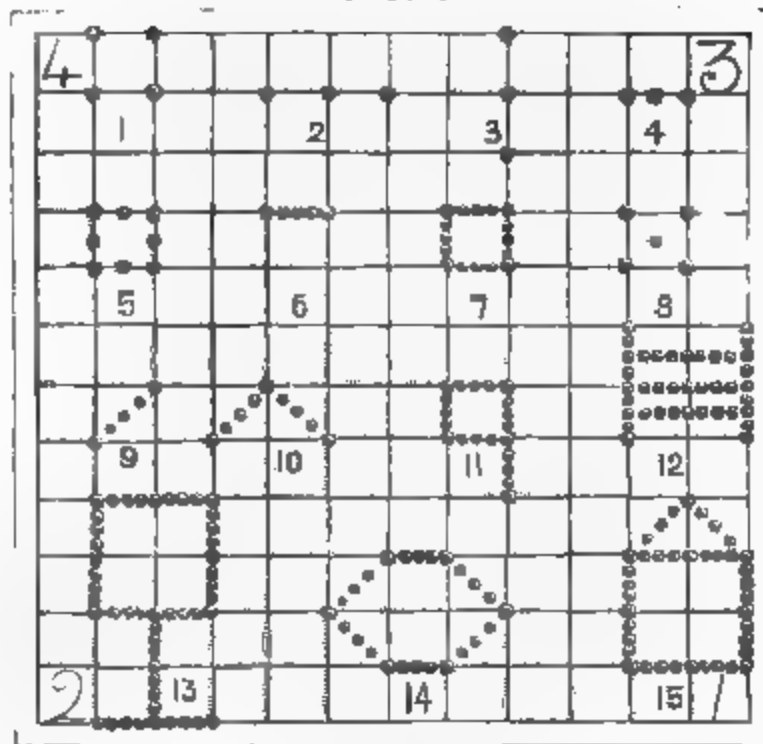
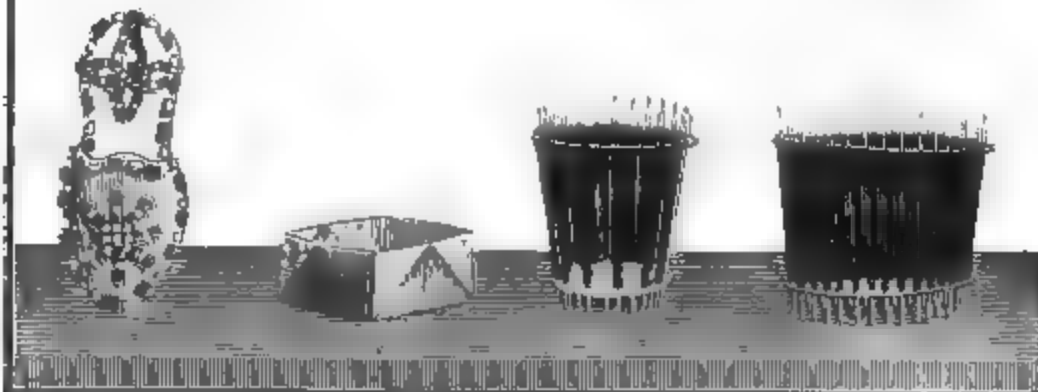
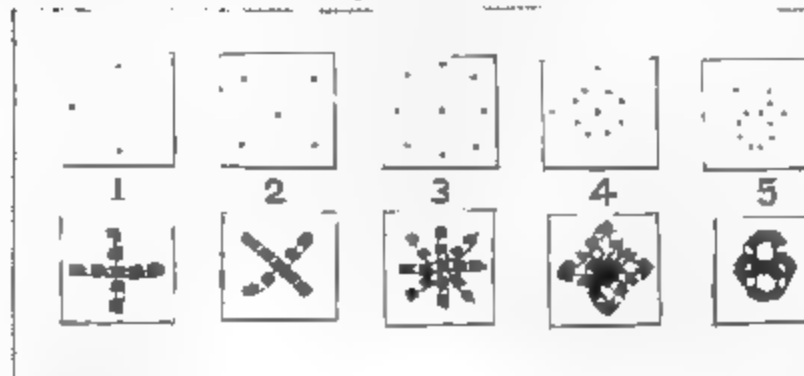


FIG. 79.



3. Guessing Game. Another way of making the subject interesting is to give the children a game. The children should first learn to name the seeds--lentils, beans, peas, etc.--and to pick out the corn, etc. Give them a small quantity of each, and then treat of the seeds in the following play. Give them the bread-kneading chart, and let them make up the children may say, "I can make a loaf of bread which will follow."

For example, the teacher says:
 "I have a loaf of bread which will follow."
 The children say:
 "What will it be?"

The children should be encouraged to make up their own. This game, of course, does not require any special preparation, and is very profitable in developing the pleasure to the children.

FIG. 12. (See page 100 for details.)

4. Laying Beads. In the diagram, Fig. 12, the figures are laid on the card in the manner shown in Fig. 11, Fig. 12, and a string of beads is used to fasten the split peas, which keep in place when the card is moved over on one side.

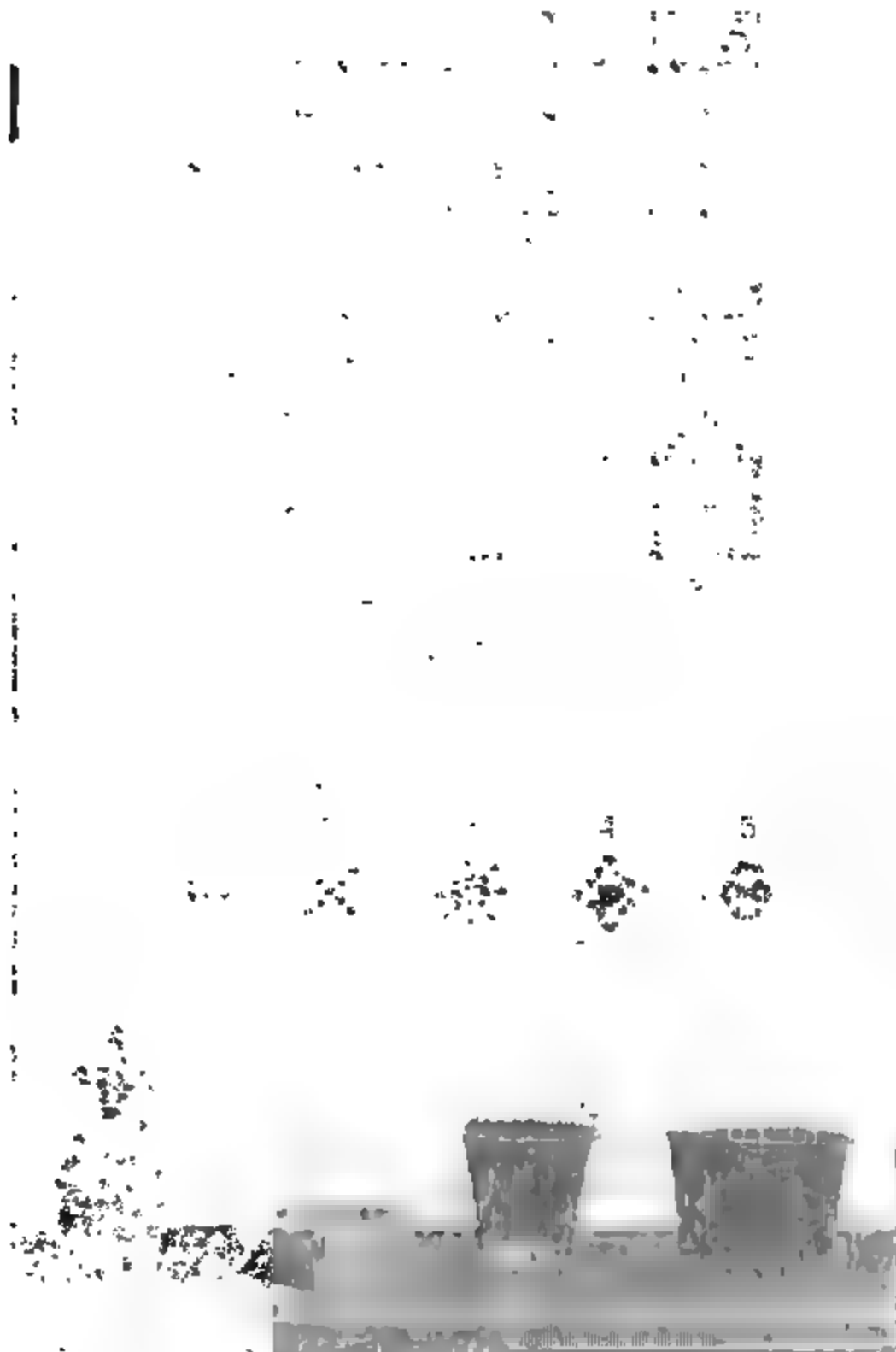
No. 1. The first step is to mark the intersections of the squares. The children should be allowed to put all their peas or beads where the squares cross, even in the intersections if possible.

No. 2. Then a lying-down line may be drawn across 10 squares long, as shown here, but the whole width of the table.

No. 3. Next comes the standing-up line, which should also be taken across the table.

Nos. 4 and 5 show a pea laid in the centre of the main line as well as in the corners, and this is followed,

FIG. 7c



3. Guessing Game.—Another way of making this subject interesting is to use the seeds for a Guessing Game. The children should first learn the names of the different seeds—lentils, broad beans, haricot beans, peas, Indian corn, etc. One child is then blindfolded, and stands in front of the class. The Teacher places a seed in the hand of the blindfolded child, after first holding it up, so that all the children may see it, and then all repeat the lines which follow :—

Here are seeds, some large, some small,
We have learnt the names of all.
Hold your hand ! what seed is this ?
Mind you do not guess amiss.

The child tries to tell the name of the seed by feeling it. This game, of course, develops the sense of touch, and strengthens the memory, besides being a source of great pleasure to the children.

FIG. 78. (See Coloured Plate 6.)

4. Laying Beads.—In the diagram given (Fig. 78), the figures are laid on the cardboard square referred to in Gift III., Fig. 12, and instead of beads, we have substituted split peas, which keep in place more easily, being curved only on one side.

No. 1.—The first step is to mark the intersections of the squares. The children should be allowed to place all their peas or beads where the squares cross, covering all the intersections if possible.

No. 2.—Then a lying-down line may be laid, not two squares long, as shown here, but the whole width of the table.

No. 3.—Next comes the standing-up line, which should also be taken across the table.

Nos. 4 and 5 show a pea laid in the centre of the inch line as well as in the corners, and this is followed,

Nos. 6 and 7, by the placing of a pea on each side of the one in the centre.

No. 8.—Now the centre of the square is found, and one pea is placed there, and one at each of the opposite corners.

No. 9.—We see the slanting line formed by placing a pea on each side of the one which is in the centre.

No. 10.—Two slanting lines are combined to form a Tent. The remaining figures—

11. Flag ;

12. Towel rail ;

13. Reading stand ;

14. Hexagon ;

15. Picture—

are taken from Stick-laying. All the illustrations shown in the last-named Gift may be laid with peas, beads, etc.

FIG. 79. (See Coloured Plate 6.)

5. Beads on Cardboard.—Another way of using beads is to let the children sew them on cardboard. This is a pleasing occupation for the very little ones. Take a piece of cardboard four inches square, and perforate it at the five points marked, No. 1, Fig. 79. A blunt needle, or baby-threader, is used, threaded with a length of wool or thick cotton which should have a knot at one end. Bring the needle through the hole in the centre, then thread with four beads, and pass it through the hole at the top of the cardboard. Bring the needle through the centre again, thread four more beads, and pass it through the opposite hole. Continue in this way until the cross is completed. The manner of perforating the cardboard for each pattern given is shown in the square above the pattern.

As the children become more proficient the patterns may be sewn on shaped pieces of cardboard, which are afterwards made into various useful objects, as the “slipper,” Fig. 79, No. 6.

Nos. 1 to 5 show illustrations of beads sewn on cardboard.

The cardboard is perforated at the points shown on the white square above the patterns.

No. 6.—The Slipper has the pattern No. 3 worked on the toe, and No. 4 on the upper part. The edges are perforated as if for buttonhole stitch, and the children sew the beads round. The “toe” is then stitched in its place.

No. 7 is the paper box for holding beads, etc., the method of making which is described fully in the chapter on Paper-folding, Fig. 103, p. 160.

Nos. 8 and 9 show baskets* with beads threaded on the sticks. In No. 8 alternate sticks are threaded, and in No. 9 all the sticks have beads. When the beads have been threaded, one end of the stick is inserted in the cardboard, which forms the bottom of the basket, and the other end is inserted in the rim, but this operation is delicate and difficult, and can hardly be managed by the children themselves.

* See Appendix 6.

Occupations.

Up to this time, the child has played with a variety of material, from which he has made a variety of forms, but he has been able in every case to resolve the material into its original condition. In all the Gifts this principle is carried out, but with the Occupations it is different.

These afford material for the construction of various designs and forms, but the forms, when constructed, are fixed, and cannot be resolved into the original forms as could the Gifts.

It is necessary for the child's development that this should be so. If we could alter every mistake that we make readily and easily, we should not be so careful to avoid making mistakes. But as errors are not easily rectified in real life, so the child should learn this lesson in its play, for the play is to be a preparation for the business of life. One brick in the wrong place, and the design is spoiled ; one wrong line, and the pattern is imperfect.

When we try to prick and sew,
Very careful we must be,
Or some wrong and crooked lines
On our work we're sure to see.

Every prick just in its place,
Every line exactly true,
Neat and careful all the work
That we little children do.

CHAPTER XVII.

PERFORATING.

1. Introductory.—This Occupation deals chiefly with the point. The child has already learnt to mark the points where the lines cross on its Kindergarten table, with shells, or beads, and the same principle is carried out in Perforating. We have often seen children take a pin and prick the outline of a picture on a piece of paper, or they will, in the same way, perhaps, outline the patterns of flowers printed on materials. Cowper refers to this in his “Lines on my Mother’s Picture”.

A lesson of twenty minutes’ duration, given once a week, is almost sufficient for this Occupation. Children whose sight is weak should not be allowed to perforate, as constant application of the eyes is necessary. Perforating is not suitable for a large class of children, because it needs such constant supervision. The class should have a room well lighted on the left, and even then it would be well to postpone the lesson if the day were dull or dark.

2. Materials used.—(a) **Pad.**—Each child must be provided with a pad of blotting-paper or felt. The latter is more suitable for coarse perforating. If fine work is desired the blotting-pad should be used, which is made as follows: Take a piece of blotting-paper and fold it twelve times, into a pad measuring eight inches by six. The pad thus made should be gummed to a piece of cardboard of the same size, and this again is gummed to the centre of a piece of brown paper measuring twenty inches by twelve, so that the pad

can be folded up and kept clean, and the child's work if not finished can be left inside. The child's name should be written on the outside.

(b) **Perforating needle.**—A stout needle is fixed into a round handle of wood, from which it should project about an inch.

(c) **The paper or cardboard.**—A piece of cross-lined paper or cardboard should be used, with a network of $\frac{1}{4}$ inch squares, and if the lines could be drawn in black instead of pale blue, as is usually the case, it would be much easier for the child to see where they cross, and where to put the point of the pricker. A piece of cardboard, three or four inches square, is large enough to commence with.

3. **Conversation about material.**—"What is the pad made of?" "It is made of paper." "What is paper made of?" An interesting description of paper-making should here be given. How the rags are ground up into a pulp with water, and then pressed out into thin layers to make paper and cardboard. "How does the blotting-paper differ from other kinds of paper?" "It is softer, and rougher, and not so shiny." "Why is it made like this?" "So that it will suck up the ink."

"The handle of the pricker you know about, but what is the other part made of?" "It is made of steel." "What else is made of steel?" "Scissors, knives, needles, and many other things." "We should be badly off without the bright, shining steel that makes all these articles with which to cut or pierce."

4. **How the lesson is given.**—The Teacher should draw a network of lines on the blackboard, showing as many squares as the children have on their cardboard, and with a piece of coloured chalk she should indicate the point where the pricker is to be placed. We will begin at the upper left corner, the pricker must be perfectly vertical, and the perforation must be made exactly where the lines cross. When

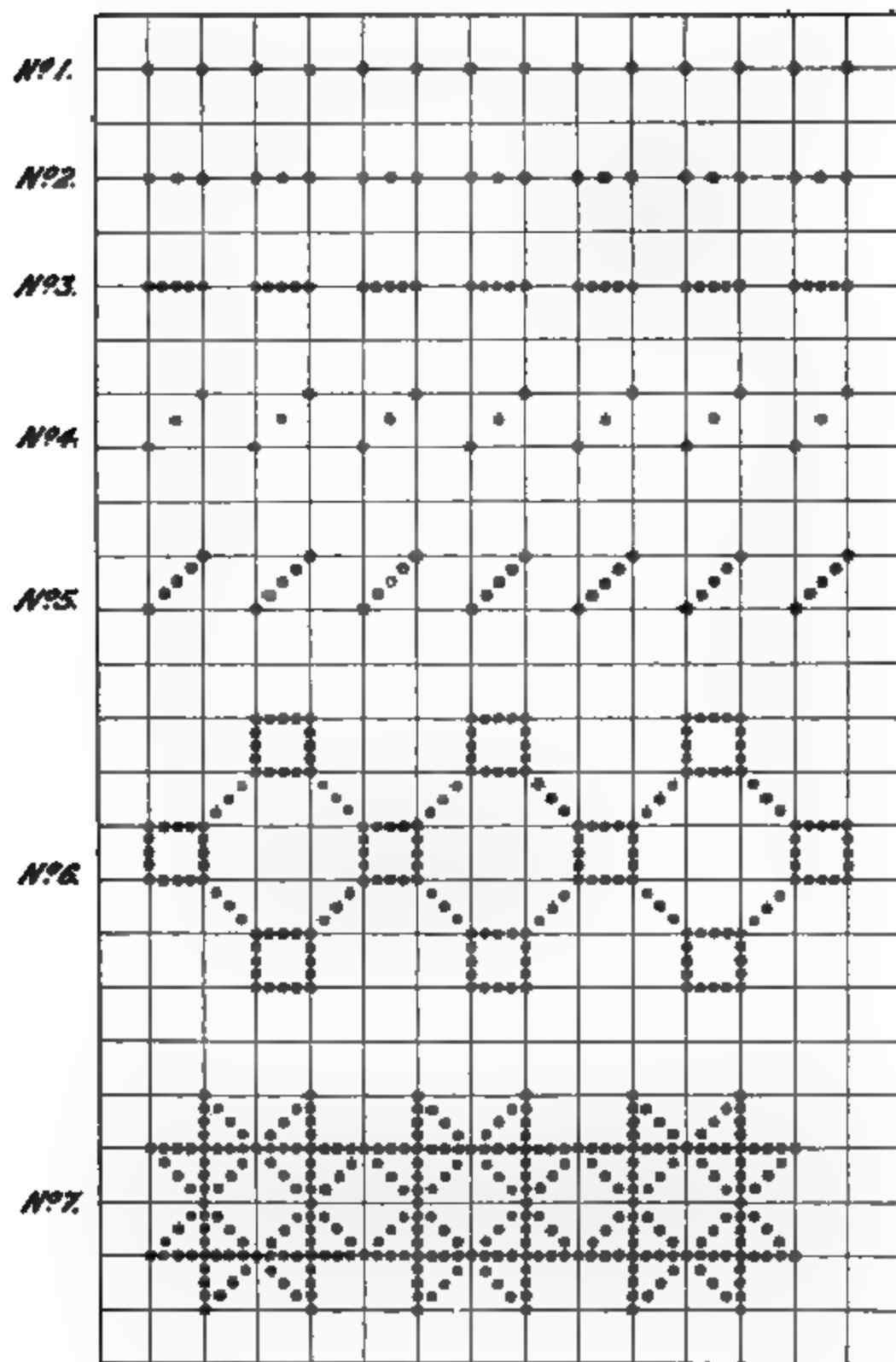


FIG. 80. Perforating.

this is done, the paper is held up and the child is delighted to see the light shining through the little hole he has made. Now make another hole very carefully (the Teacher showing on the blackboard where it has to be made). If the blotting-pad is used the pricker may be sent quite through the soft folds until it reaches the cardboard. When a row of holes has been made the card is again held up to the light and fourteen shining points are seen. The work should proceed slowly, and should be frequently supervised, so that no careless or slanting perforations are made. In the first card used the child perforates every place where the lines cross each other.

The method followed is very similar to that which is shown in the laying of Beads.

No. 1.—First the holes are made where the squares cross each other.

No. 2.—The next step is to perforate the line exactly in the middle.

No. 3 shows five perforations, and before proceeding further, squares and other combinations of vertical and horizontal lines should be practised, each line being perforated like No. 3.

No. 4 shows the perforation in the middle of the square, and

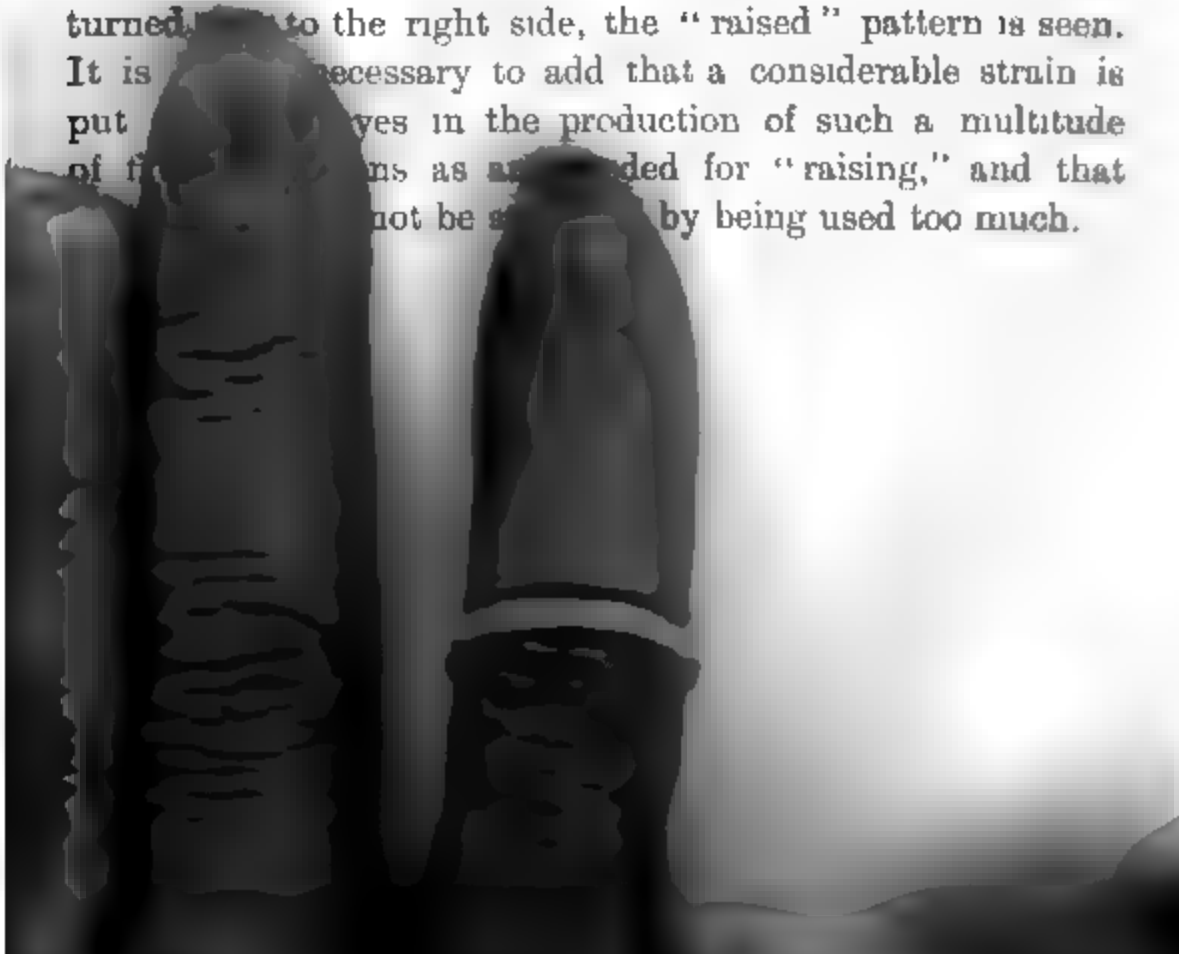
In No. 5 a prick is placed on each side of the centre to make the slanting line. Various patterns of slanting lines should be perforated before proceeding further, *e.g.*, see Fig. 83, Embroidery Cards.

Nos. 6 and 7 show combinations of slanting and of lines; for further illustrations see Fig. 84, Embroidery Cards.

When the child has learnt to place the pricks at equal distances, he may proceed to trace outlines of forms, *e.g.*, a leaf, a house, an animal, etc., the pattern being first made in the first place on thin paper, and then

the cardboard or paper, to which it is to be transferred by perforating. The pattern may be kept in place by cutting the blank paper rather larger than the pattern, so that its edges may be folded over the latter. When every line has been evenly pricked the drawing is removed, and the child sees the same pattern outlined by his perforating.

Embossing or "Raising".—Very pretty effects may be obtained by "*raising*" the pattern, which is done as follows. First the shape is outlined on cartridge paper, or very thin cardboard; then the card is turned over and perforated on the wrong side. Suppose the pattern to be a walnut; the pricks on the wrong side would, in the first row, follow the line of the oval pricked on the right side, the pricks for "*raising*" being kept close inside the outline. The next row follows closely inside again, and the plan is continued in every row, the oval becoming smaller and smaller with each row, until the centre is reached. Then if the figure be turned over to the right side, the "*raised*" pattern is seen. It is necessary to add that a considerable strain is put on the eyes in the production of such a multitude of fine lines as are needed for "*raising*," and that this should not be suffered by being used too much.



CHAPTER XVIII.

EMBROIDERY.

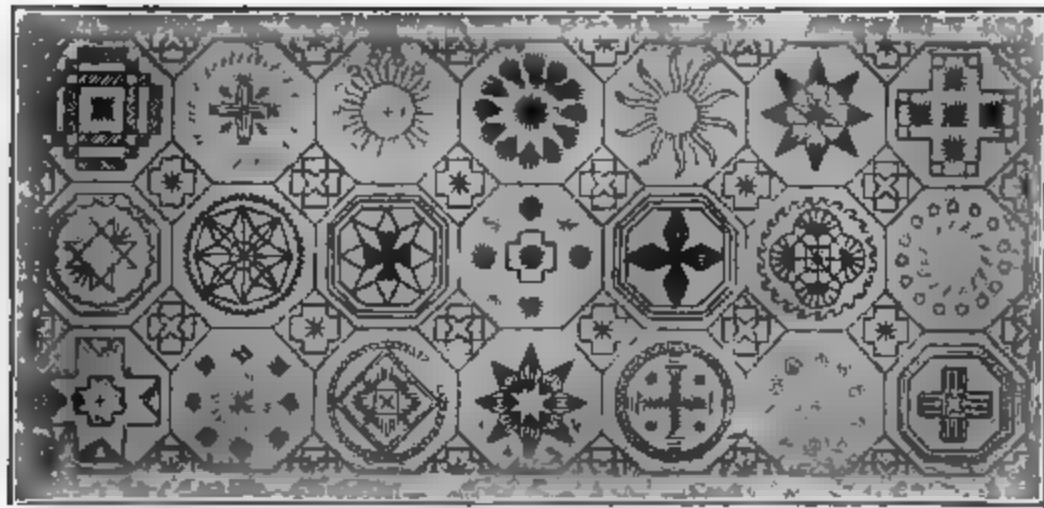


FIG. 81.

(The above patterns are designed and worked on cross-lined cardboard ; the original measures about 24 in. by 12 in.

I. Introductory.—Everybody knows how delighted a child is to have a needle and thread given to it, with a piece of material on which to sew. Children like to produce something, and they like also to imitate the actions of grown-up people, both of which desires are gratified in this occupation. Moreover, if it is gratifying to use a needle and thread, even when nothing definite can be produced, how much more gratifying must it be to work with these implements, when beautiful results can be obtained ! A gardener, having occasion one day to visit an Infant School in the West

Riding of Yorkshire, was struck immediately on entering with the appearance of a frame containing specimens of the children's work. They were patterns of embroidery which had been designed by the children themselves in the drawing lesson, and had afterwards been perforated and sewn on chequered cardboard. The gardener asked permission of the head mistress (by whose kindness also they are shown here, Fig. 81) to allow him to copy the designs for his own use in "carpet"-gardening. This proves that the occupation is a preparation for some, at least, of the after-work of life. The child also learns how to use a needle, which in itself is an important acquisition.

The mental effect of this work is beneficial, for it soothes and quietens.

Like perforating, this also teaches patience and care. Sometimes a knot appears on the wool, and a sudden pull would tear the card, or break the wool, so the child must wait until the knot can be undone, otherwise its work will not be neat, and neatness is always insisted upon in the Kindergarten. As drawing complements the exercises with beads or shells, so does this occupation of embroidery complement the previous occupation of Perforating, for it is a kind of "Drawing with coloured threads".

2. Materials used.—We will suppose that the child has before him a piece of cardboard four inches square, marked with $\frac{1}{4}$ inch squares, which he has already prepared for himself in the perforating lesson. The other implements needed are a rug needle with large eye and blunt point, and a length of wool—crewel, Shetland, or fine Andalusian are the most suitable. Before commencing the work the materials should form the subject of interesting conversations: how the wool came from the sheep's back and was dyed the pretty colours that we see, and how the needle is made of hard, bright steel, etc. At first the wool chosen should be

one of the primary colours, red, blue or yellow, but later the secondary colours may be used.

3. The First Lesson.—The Teacher should have a piece of stout cardboard, 16 inches square, ruled in inch squares, and perforated to match the children's squares ; she should also have a large darning needle and a length of thicker wool than that used by the children, so that all may be able to see.

The children might be supplied with a strip of cardboard (say two inches by one inch) folded in halves, with which to hold the card they are working.

A small knot should be made at the end of the wool. The Teacher now says : “ Take the needle in your right hand, and hold the cardboard in your left. Put the needle behind the cardboard and send it through the hole in the upper left corner, on the wrong side of the card. Now draw it through on the right side, until only the knot can be seen behind.” (The Teacher does this on her larger card, and if the class is large she must stand before them, holding the card in her right hand and the needle in the left, otherwise the children will be confused.)

“ Now take the needle and put it through the next hole below on the right side and draw it through. What have you made ? ” “ We have made a standing-up line which joins the two points together.” The needle is then put through the next hole below, on the wrong side, and brought out on the right side ; then put it in again on the top row, and so on until a row of vertical lines is seen.

If the cardboard has not been pricked correctly, the lines will be imperfect ; the child will thus learn that careful preparation is necessary if good work is to be obtained, and this is a lesson which will be useful in the later years of life. In the next line we work from right to left, and the wrong side of the card now shows four rows of lying-down lines.

Sometimes coloured cardboard is used and makes a pleasing

variety; the child should be encouraged to find a colour of wool that will harmonise nicely with the colour of the card-board.

The steps in Embroidery are the same as in Drawing. The illustrations which follow are taken from the A. L. Series * by the kind permission of the Publishers.

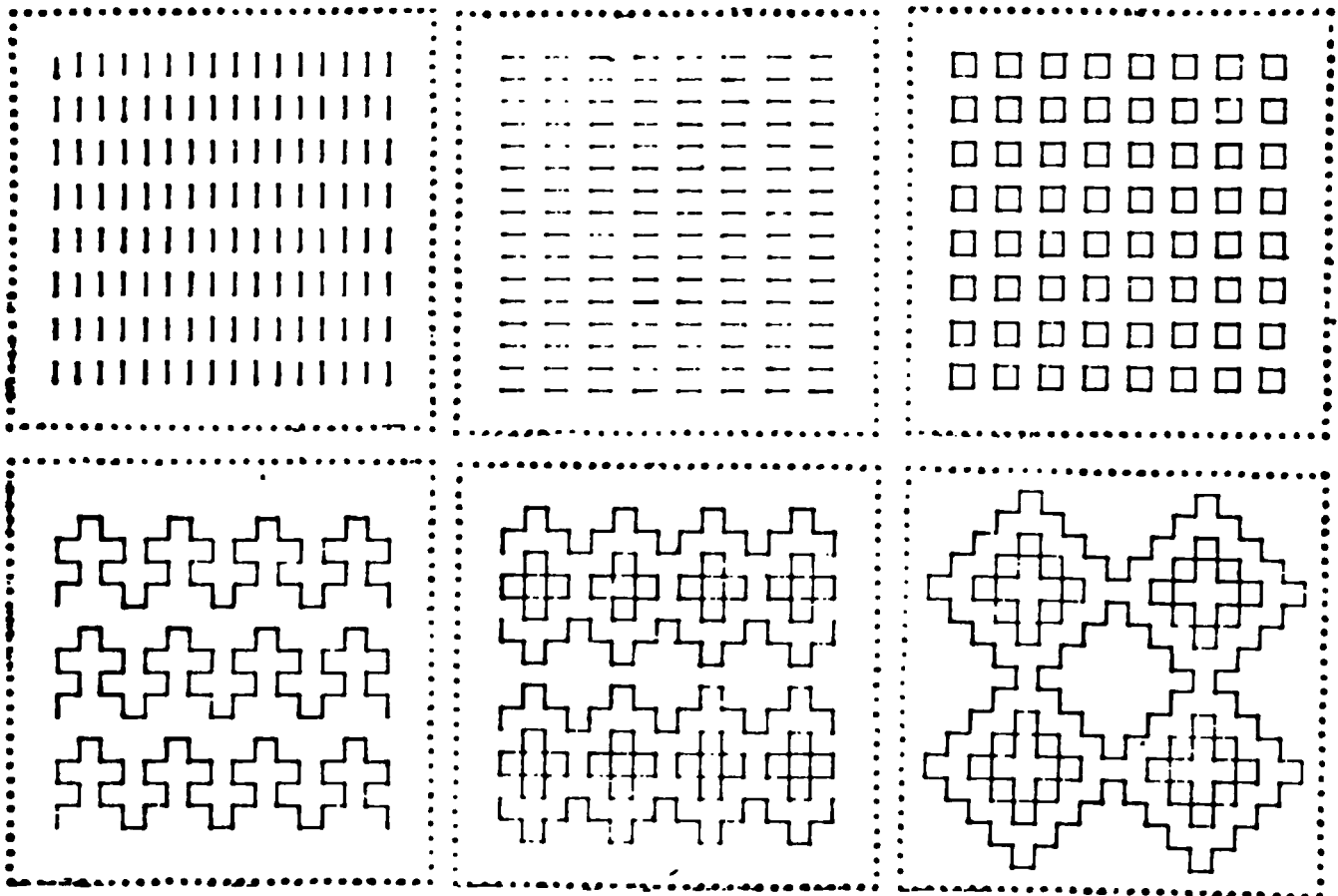


FIG. 82.

Fig. 82 shows standing-up and lying-down lines, and patterns formed by combining these two.

* See Appendix 7.

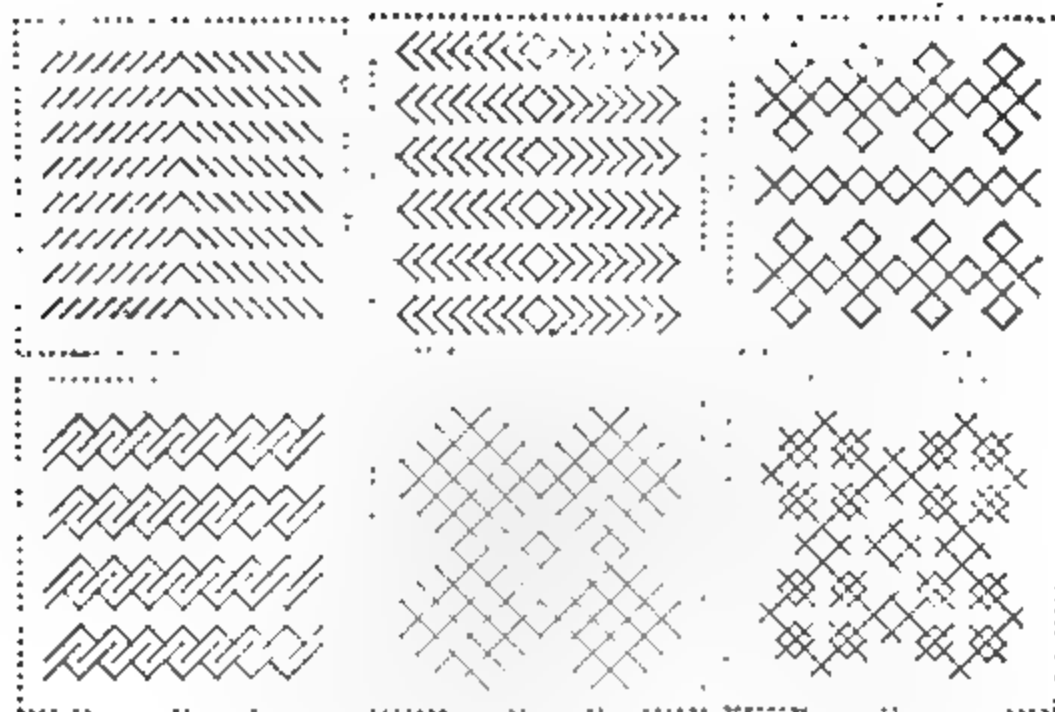


FIG. 83.

Fig. 83.—These cards show the steps in slanting lines.

FIG. 84. (See Coloured Plate 7.)

Fig. 84.—The patterns here combine the three kinds of lines, and also show how the cards may be coloured.*

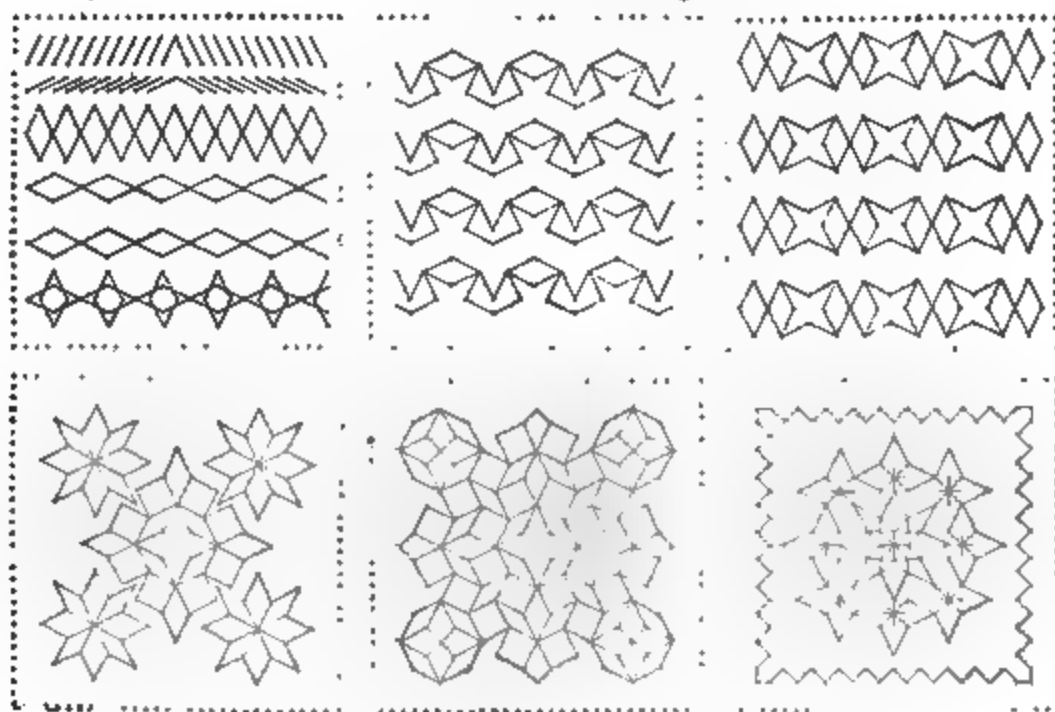
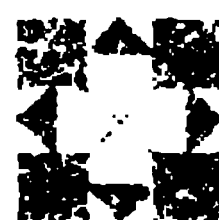
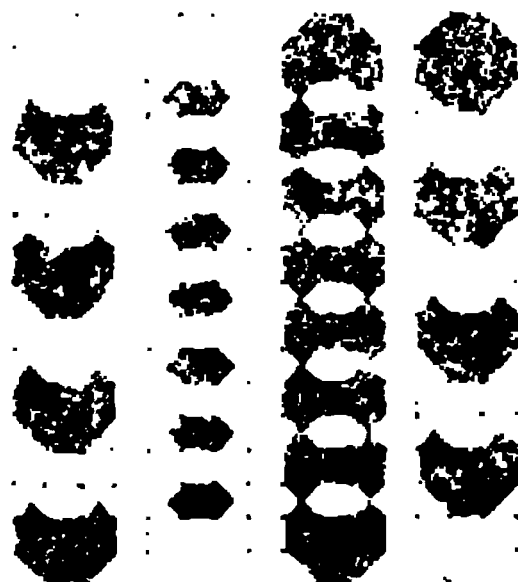
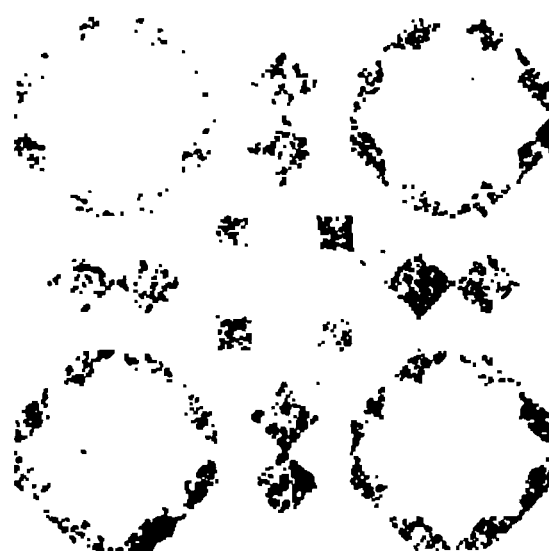
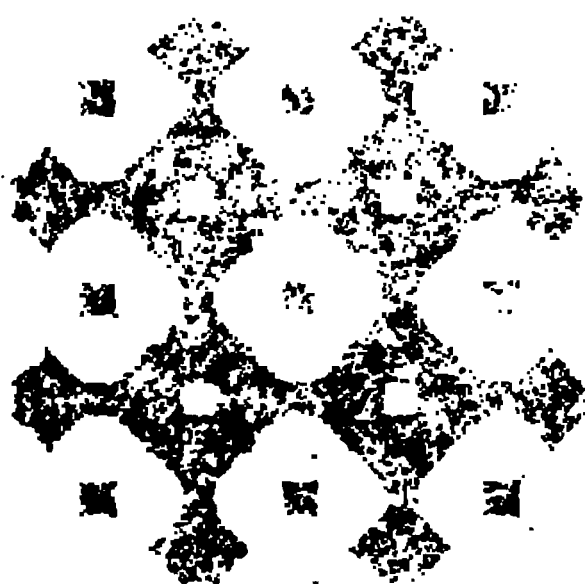
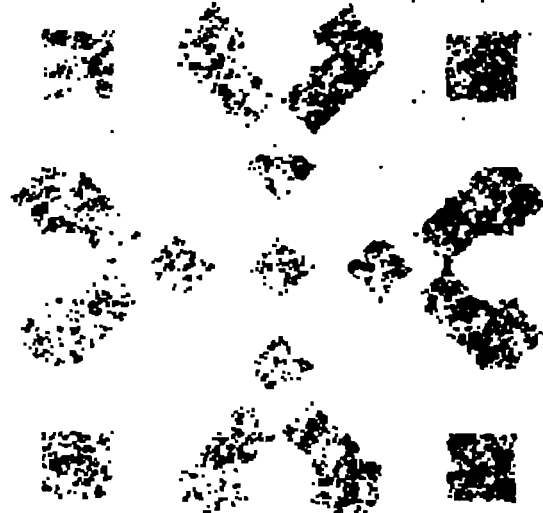


FIG. 85.

Fig. 85 introduces the half-slanting lines.

* In examining Plate 7 the book should be held sideways, so that the pattern showing octagons in rows appears first.



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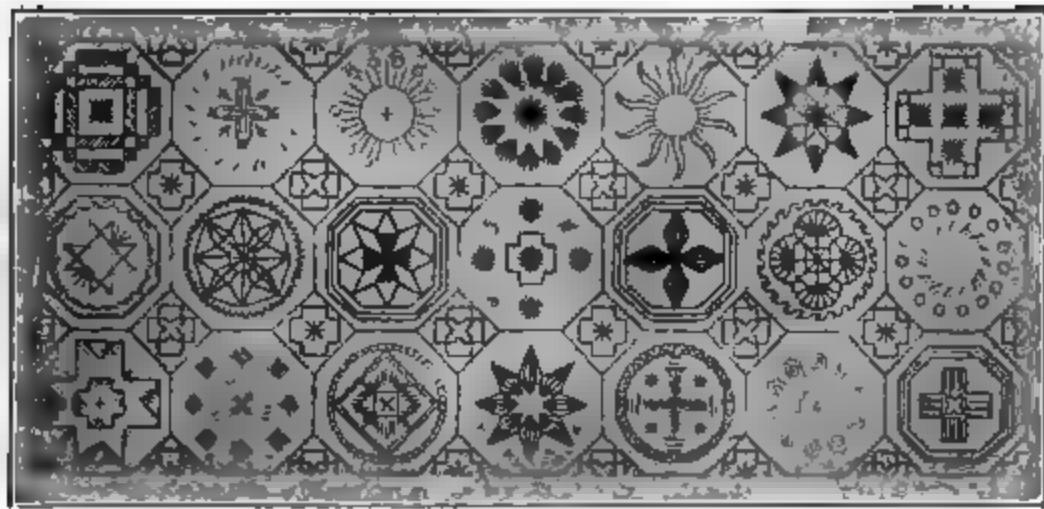


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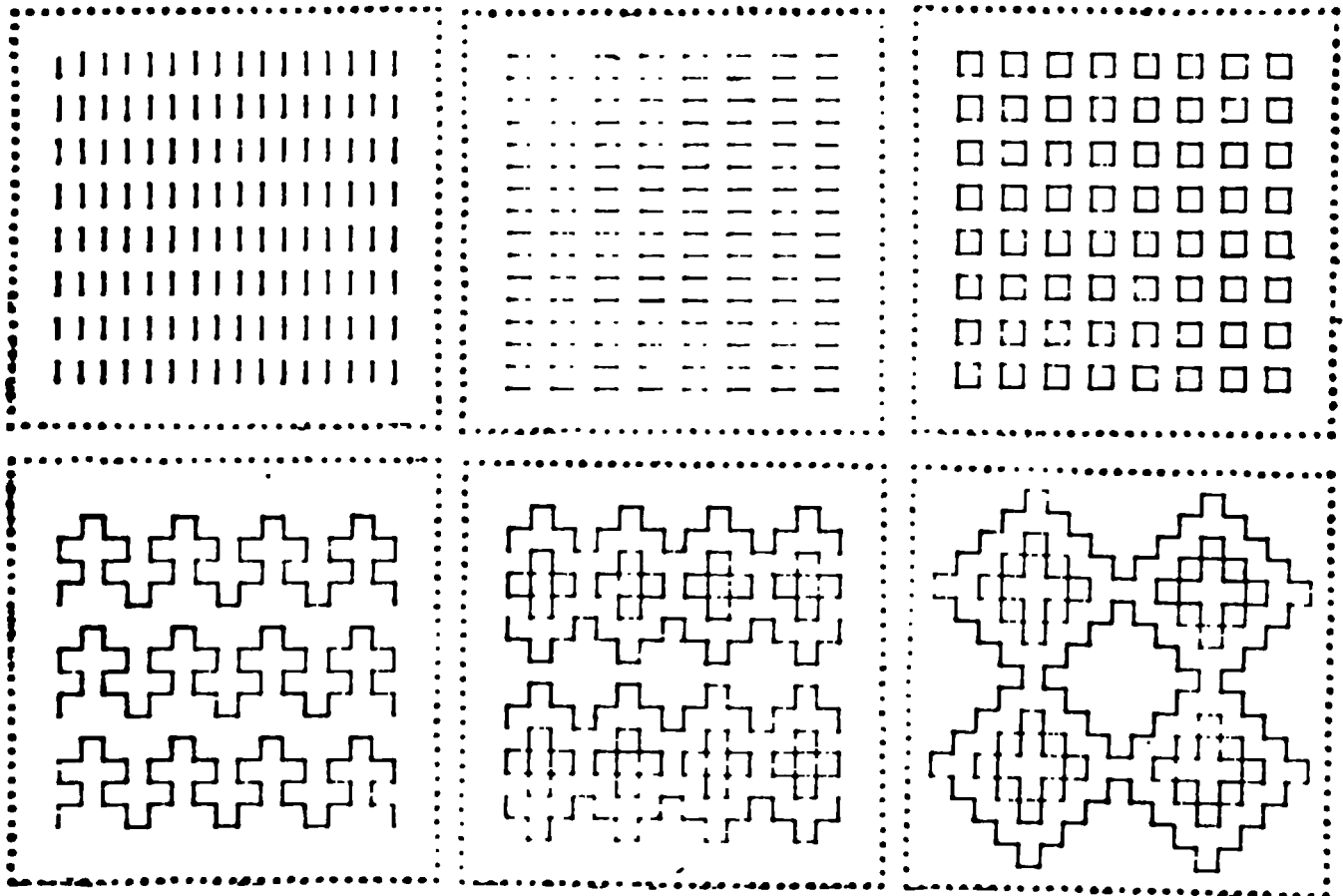


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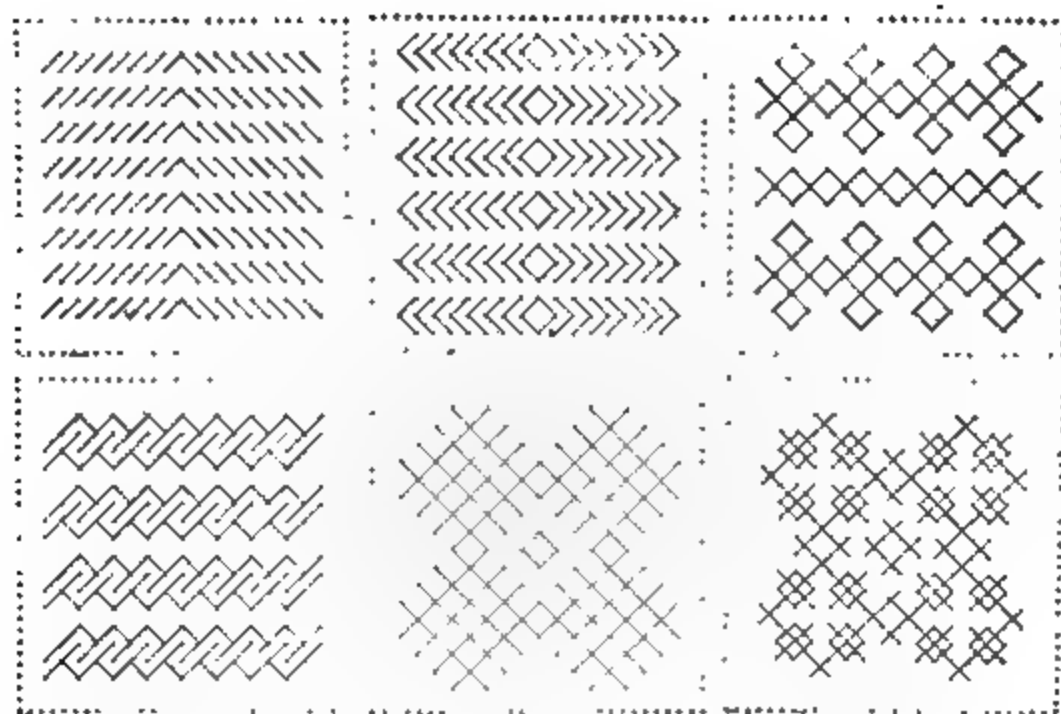


FIG. 83.

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FIG. 84. (See Coloured Plate 7.)

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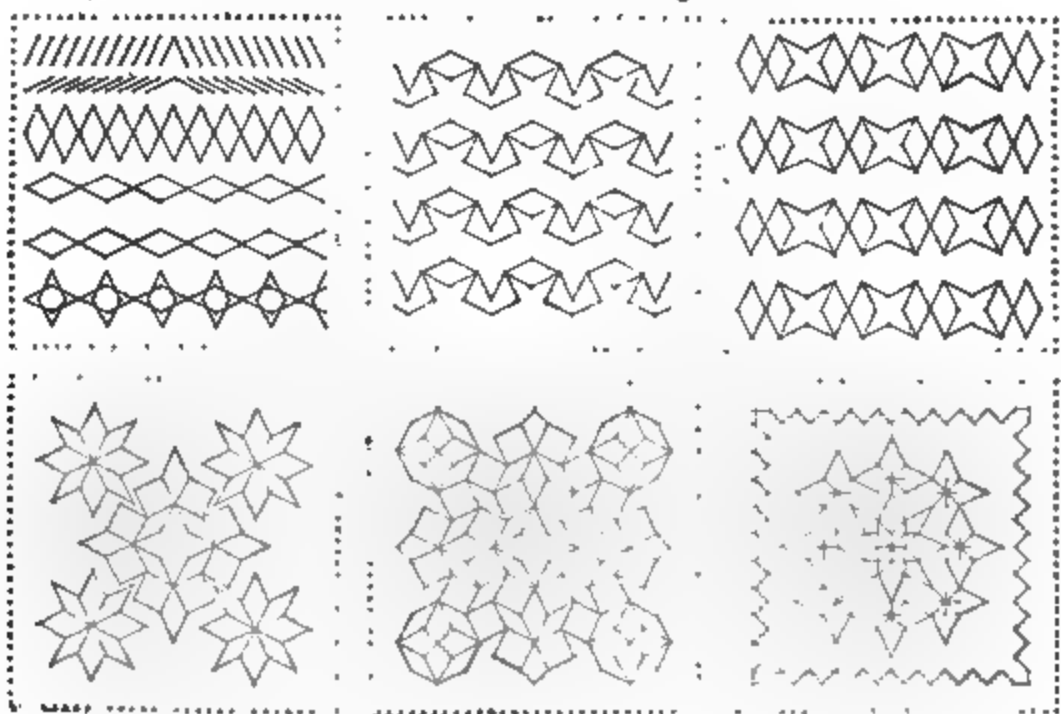


FIG. 85.

Fig. 85 introduces the half-slanting lines.

* In examining Plate 7 the book should be held sideways, so that the pattern showing oct- rows appears first.

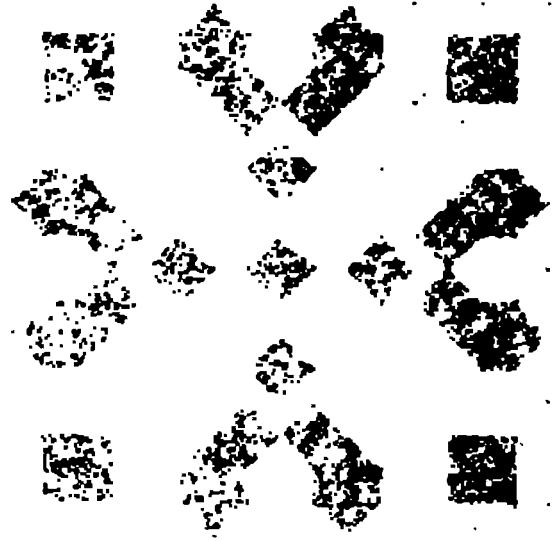
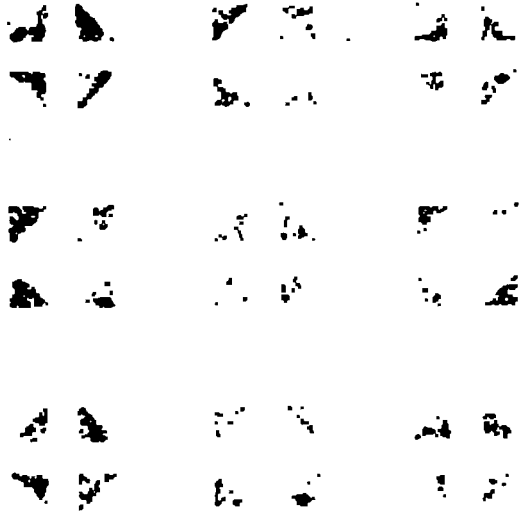
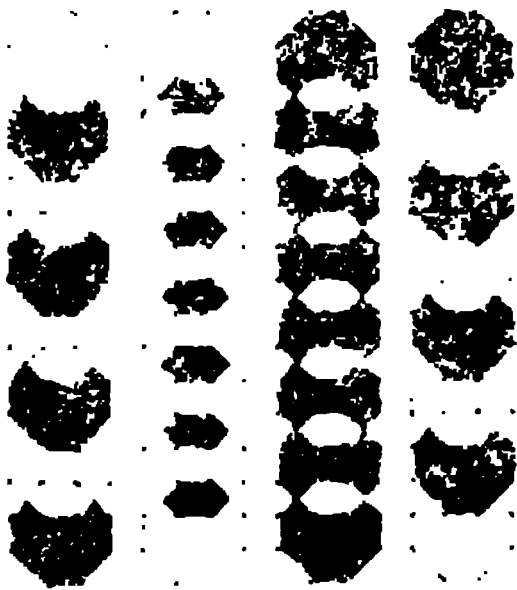
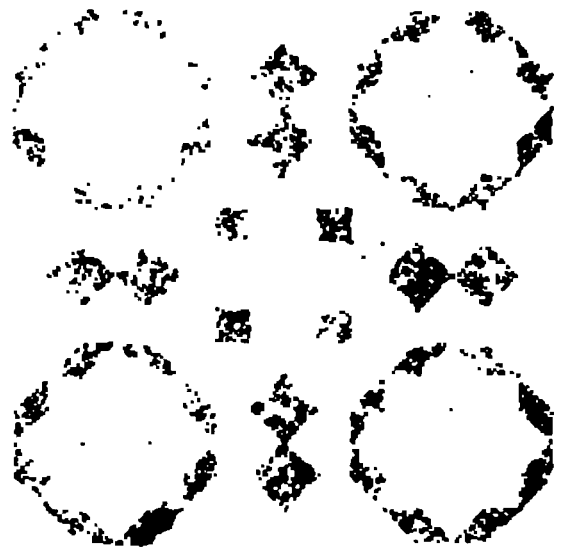
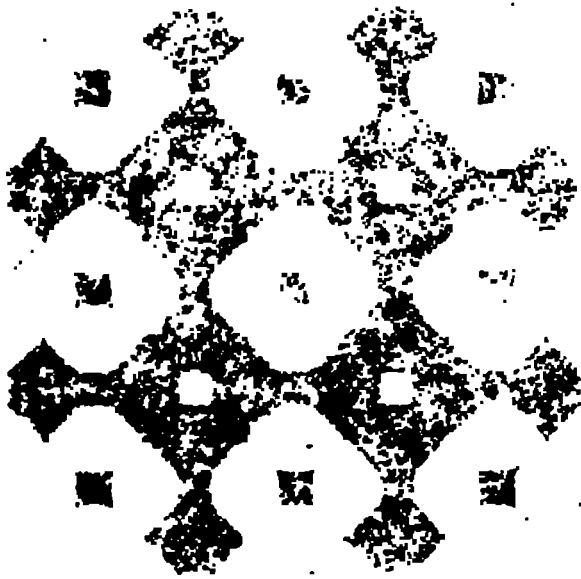


FIG. 54.



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Fig. 85 introduces the first sheet of the

* In examining Plate 7 the reader should always see the pattern showing octagons in row 1, page 7.

PLATE 7.

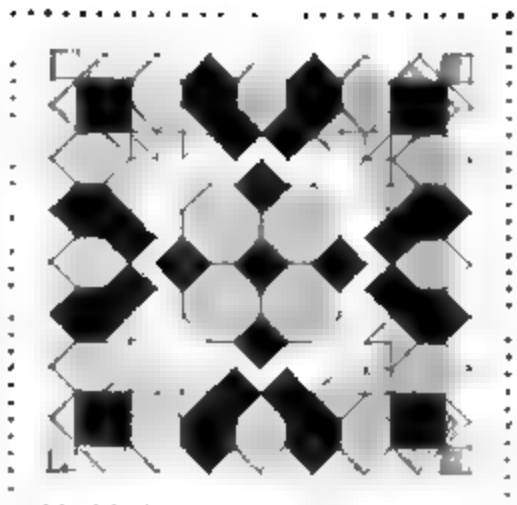
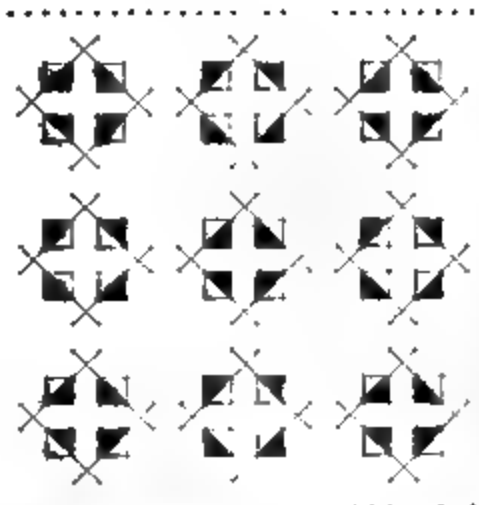
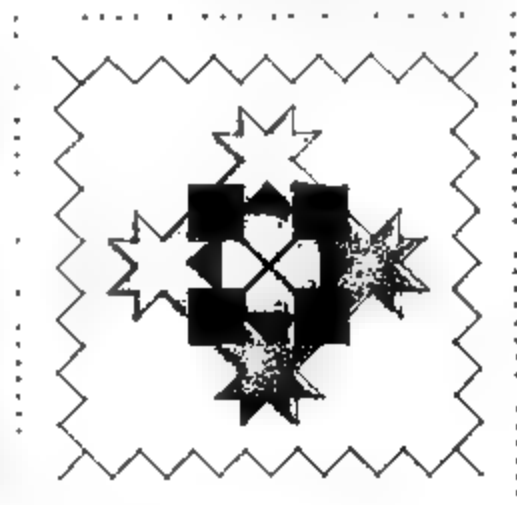
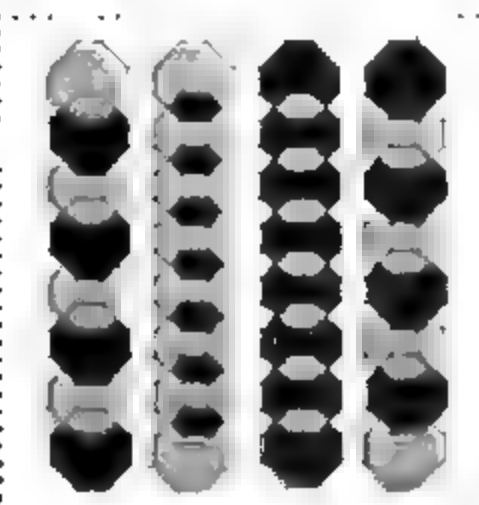
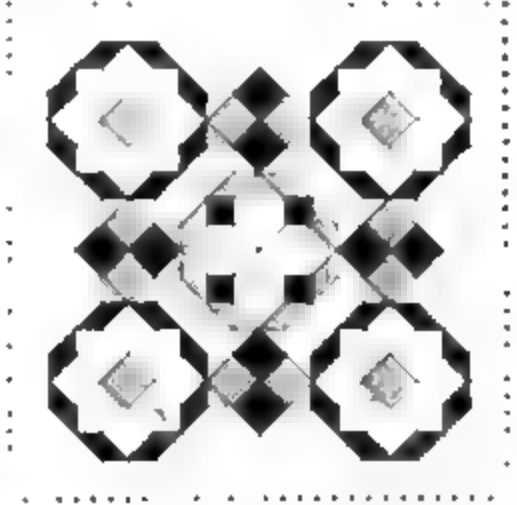
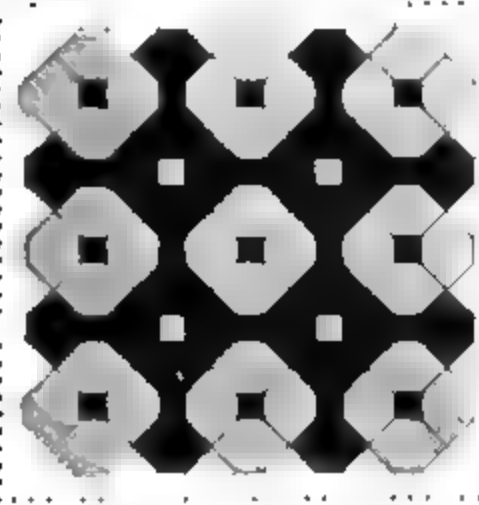


FIG. 84.



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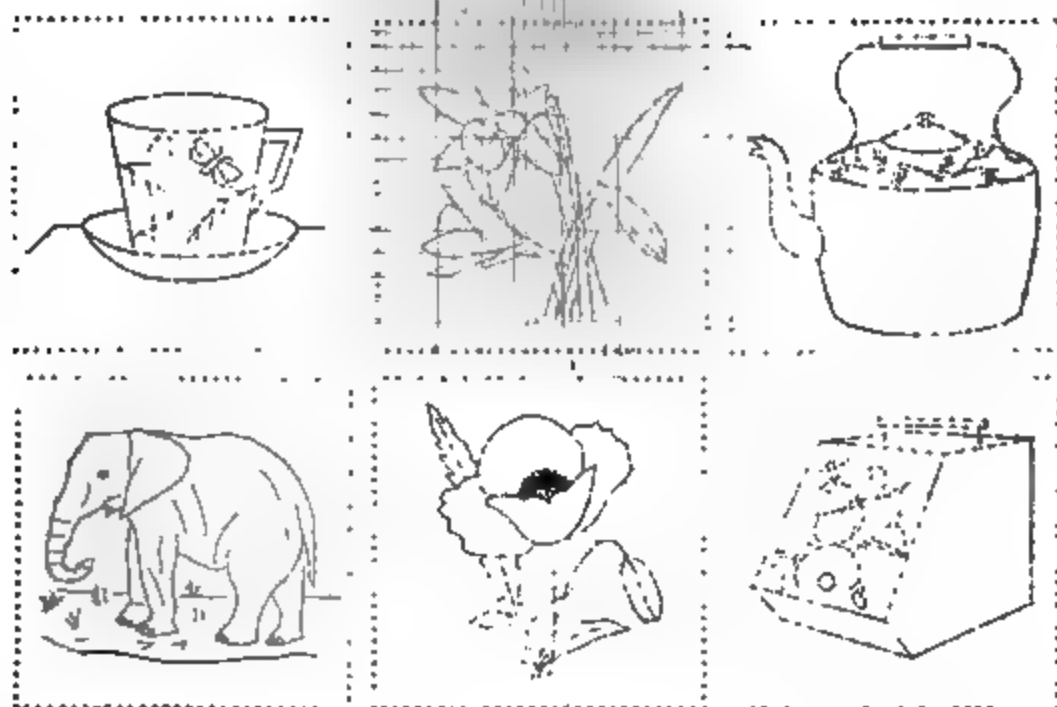


FIG. 86.

Fig. 86.—The “cup and saucer” pattern illustrates objects. The “Elephant,” animals; the “Daffodil” and “Poppy,” spring and summer flowers respectively, and the remaining figures are selected from another packet of objects.

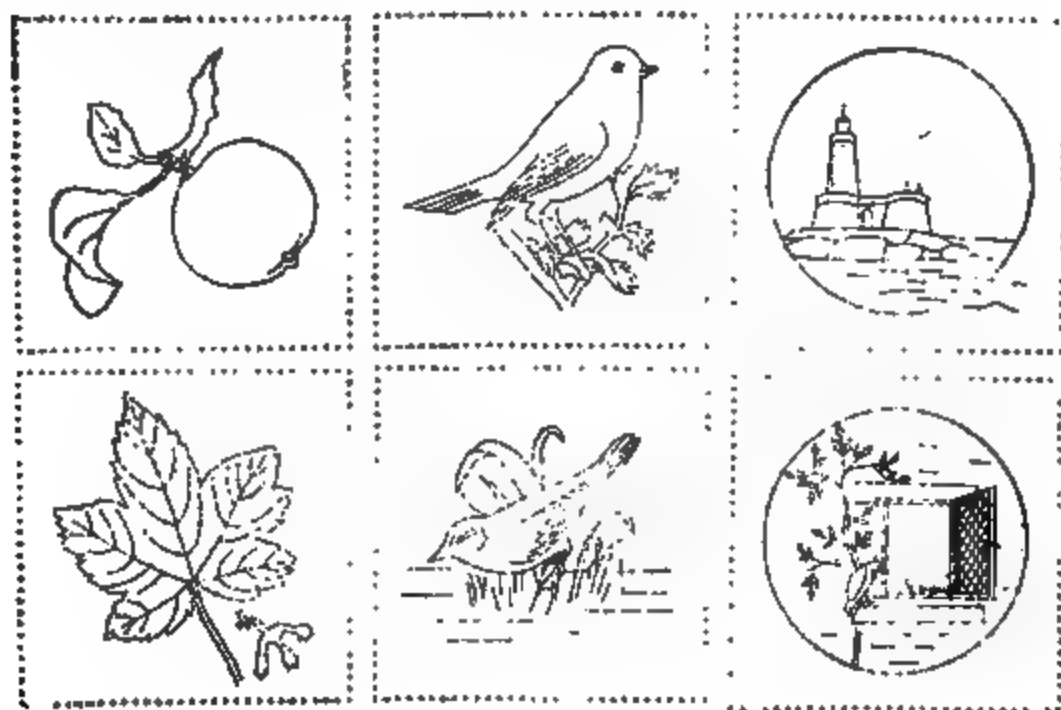


FIG. 87.

Fig. 87 shows two examples from “Fruits and Leaves,” two from “Birds,” and two from “Views”.

FIG. 88. (See Coloured Plate 8.)

Fig. 88.—Two “tidies” (from a packet of Embroidery Models *) show how the child’s work may be made up into useful articles.

When the child has sewn several cards he may be allowed to use different shades of the same colour, thus: The first line might be sewn in dark brown, the next in a lighter brown and the third in fawn. The child learns also which colours harmonise well together, as it is allowed to combine different colours on its designs, and we can scarcely conceive of a child, thus trained, wearing hideous contrasts of colour when it grows older, for it has learned in early life the proper combinations. As the child advances he may be allowed to choose the colours with which to work for himself.

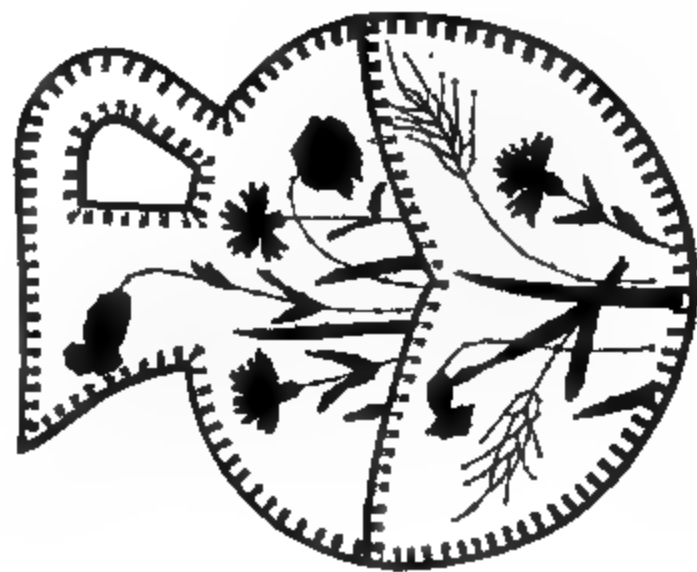
Inventive embroidery has already been mentioned, the children first making their own designs in drawing, and if the designs are coloured to match the wool or silk used the effect is very pretty (Fig. 84). Outlines of animals, flowers and other objects should also be given to the children to sew, and these again may form the subject of interesting conversations and may be used to illustrate Object, Natural History and other lessons as shown on page 18. Both animals and flowers should be sewn in colours natural to them.

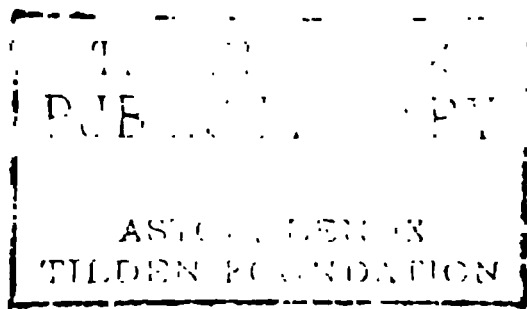
In this Occupation the results of the child’s labour may be turned to good account. Various shapes of tidies and wall pockets may be worked (Fig. 88), and made up as presents for Mother or others at home. This is a source of great delight to the child, and trains him, also, in lessons of unselfishness and thoughtfulness for others. With a little care the child learns to button-hole the articles when embroidered, and can then make up its own work, an important means of training in habits of self-reliance and independence. The designs on these articles may be either plain or coloured.

* See Appendix 8.



FIG. 88.





CHAPTER XIX.

PAPER-PLAITING OR MAT-WEAVING.

I. Introductory.—In some of the previous Gifts and Occupations, reference has been made to the utility of the work there introduced as a grounding for occupations which come later in life, but in none of these is the utility more marked than in paper-weaving. A boy, who had passed through the Infant school, and practised this occupation among others, acknowledged that it had been of great service to him when he entered the Textile school to learn designing in cloth. In the manufacturing districts of England, great numbers of the children, who pass through the Elementary schools, are employed in mills, where weaving is carried on, and if this occupation of Mat-weaving could be continued until the children had a thorough knowledge of its principles, how much intelligence might be brought to bear on the actual weaving, and how much more pleasure might the worker draw from labour that is often looked upon as so much mechanical drudgery!

Mat-weaving not only develops manual skill in both hands (for the left is used as well as the right), but it requires a considerable amount of intelligence to produce the combinations which make up the designs. It is a good training also in number, for the child cannot possibly weave unless he counts. The æsthetic nature of a child is also cultivated, for the patterns are pleasing to the eye; the love of colour is gratified, and combination of colours tends further to strengthen the sense of harmony.

2. Materials used.—These are, first, the *mat*, which is a piece of cardboard or paper, cut into strips in the centre, with a border left all round; and there are also the loose strips for inter-weaving. The strips of the mat are the *warp*, and those woven in are the *weft*. Before the lesson is given the Teacher might say, “Look at your dress, you know what it is made of?” “It is made of cloth,” say the children, “and the cloth is made of wool.” “But how was the wool made into the cloth? It was drawn out and spun into long threads, and these were put in a machine called a loom, just as the strips of your mat lie before you on the table. Then the weaver came and took another thread, which was wound on a reel, and put in a shuttle” (show the children a shuttle if possible), “and the weaver sent this thread, which is called the *weft*, in and out of the threads of the *warp*, and wove the nice cloth which makes your dress.”

Busy little weavers,
Ready now are we,
With our mats before us,
Soon at work we'll be.

First the (1) warp we'll show you,
(2) These loose strips are weft,
In and out we weave them,
(3) With our fingers deft.

- (1) Hold up the mat.
- (2) Hold up strips.
- (3) Show both hands

The Demonstration Frame* is a very useful invention. It is so much larger than an ordinary mat that it can be seen by a large class, and the loose weaving "strips" (which are laths of wood) can be easily passed in and out of the fixed vertical strips; the latter are made of worsted braid.

FIG. 90. (See Coloured Plate 9.)

The cardboard mat† is the best to learn with. The strips may be taken out again and again, and therefore all the easy steps (Fig. 93, No. 1, etc.) may be practised on the one mat. Another great advantage is that no needle is required.

Each child should have an envelope made of stout brown paper, with its name outside, in which to place the mat.

Suppose each child to have the cardboard mat (Fig. 90), with loose strips, on the desk ready for working. The Teacher



FIG. 89.

* See Appendix 9.

† See Appendix 10.

might say, "Take one of the strips in your right hand, put it *behind* the border, *before* the first strip, *behind* the next, *before* the third, and so on, until the other border is reached, when we again go behind". If a Demonstration Frame is used, the Teacher would work with the children.

The first row is accomplished with little or no difficulty, but in the next row, where we have to go not only behind the border again, but behind the first strip, the child is often puzzled, and the following method of illustration has been found very useful in teaching large classes of children.



FIG. 92.

Let four or half a dozen children, of equal height, stand in a row, a little distance apart, facing the class, with a taller child at each end of the row. The four children represent the strips of the mat, and the two taller ones stand for the borders. A length of tape is attached at one end, to the *left* shoulder of the first child (*i.e.*, the child who represents the border on the right), and the other end is held by the child

who is the weaver. Teacher says, "Now we will do the first row. Where will the 'weaver' go?" First *behind* the border, then *before* the next child, *behind* the next, *before* the next, and so on, until the left border is reached, when she again goes behind, and the tape is secured to the right shoulder of the last child. For the next row, the tape is fastened a little lower down, and the "weaver," beginning again, takes the other end of the tape in her hand, and passes this time not only behind the border but behind the first child, then before the next, and so on, until the other side is reached, when the tape is secured as before. It will now be seen that the "borders" have no black tape in front of them, and that the children who had the black tape passed in front of them in the weaving of the *first* row, had it passed *behind* them in the second row, while those who had it behind in the *first* row, have it before in the *second*. However dull the child may be, it seldom fails to grasp the idea thus taught, and the second row of the mat is accomplished without much difficulty. Many teachers use the words "over" and "under" in teaching Mat-weaving, but "before" and "behind" should be used in this illustration, and the writer has found it wise to continue their use in Mat-weaving as well, for "behind" generally means out of sight (to a child at any rate), and the end of the loose strip, when passing behind the strip of the mat, is out of sight. The third row is like the first.

The strips should always be taken out of the cardboard mat by the Teacher. It is not wise to allow the children to do this for themselves, nor to do it when they are present, for it is discouraging to them to see their work destroyed. On the other hand, if paper mats were used, and the children were allowed to work a mat in each of the elementary steps, the cost would be very considerable in a class, say, of forty children. Moreover, the work is executed more quickly and easily with the cardboard strips, and as no needle is required,

time is saved by not having this to thread. When the child has reached the key pattern, Fig. 91 (Coloured Plate 9), with the cardboard mat, a paper mat may be given to him, and he will learn the use of the needle, shown in Fig. 91 (Coloured Plate 9), and what it is made of, etc.

The best needles are those that open with a spring; the raised part is pressed slightly between the thumb and forefinger of the left hand, until it opens wide enough to admit the end of the strip; when the pressure is removed the spring closes, and secures the strip, which is then carried across the mat by the needle. When the left side is reached, the spring of the needle is again pressed to release the strip, which is then pushed carefully to its place. It is not by any means necessary for the child to weave every step, and great pains should be taken to give him clear ideas of the numbers used. To young children no pattern should be given that requires higher numbers than three; and for children up to six years of age, patterns where the counting does not exceed five are sufficiently difficult.

FIG. 93. (See Coloured Plate 10.)

FIG. 94. (See Coloured Plate 10.)

FIG. 95. (See Coloured Plate 11.)

FIG. 96. (See Coloured Plate 12.)

FIG. 97. (See Coloured Plate 12.)

Fig. 94.—The steps in Mat-weaving are shown in the illustrations; the simplest, of course, is the “1 and 1” pattern shown in No. 1, then “2 and 2” follow, next combinations of 1 and 2, and then higher numbers.

When we come to the “step” patterns, No. 2, it will be seen that Fröbel’s law of “reconciliation of opposites” is applied. First we have the steps sloping up to the right, then to the left, No. 2, and in No. 3 the two directions are combined.

No. 4 shows broken steps. No. 5 contains patterns made by combining the formulas “2 and 2” and “1 and 1”. In

Figure 1 consists of two scatter plots. The left plot shows a positive correlation between the number of children and the number of adults, with a regression line indicating a positive slope. The right plot shows a negative correlation between the number of children and the number of adults, with a regression line indicating a negative slope.

A black and white photograph of a large, dense crowd of people, likely at a political rally or protest. The crowd is seen from a slightly elevated angle, filling the frame. Many individuals are looking towards the camera or slightly to the side. The image is grainy and has a high-contrast, almost stencil-like quality.

PLATE 9.

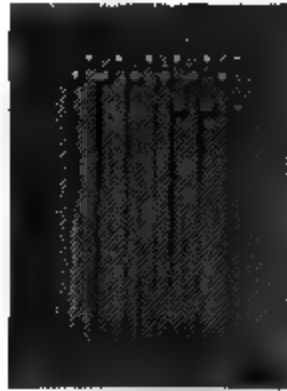
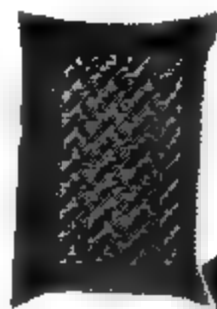


FIG. 90.

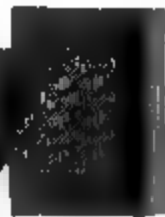


FIG. 91.

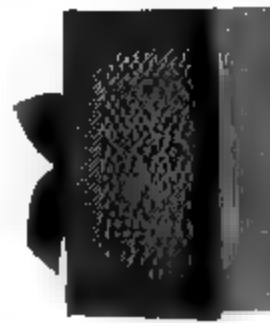
FIG. 98



1



2



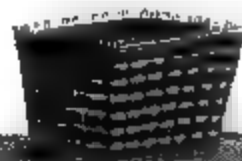
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4



5



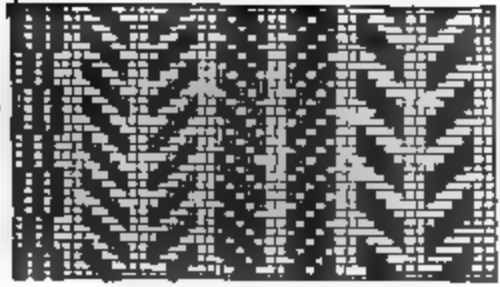
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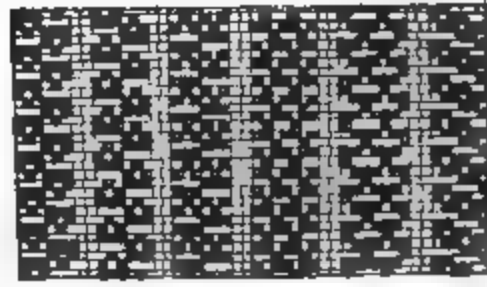
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FIG. 94.



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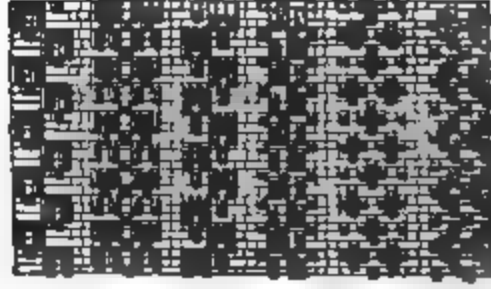


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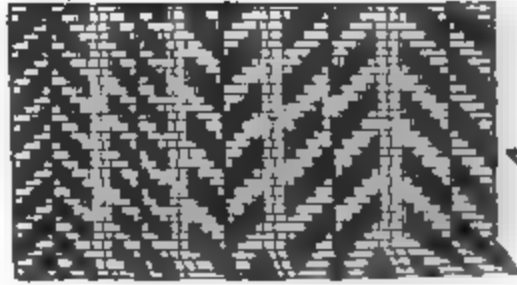
PLATE 10.



3



6



4

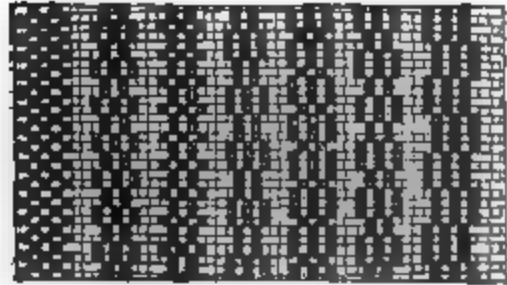
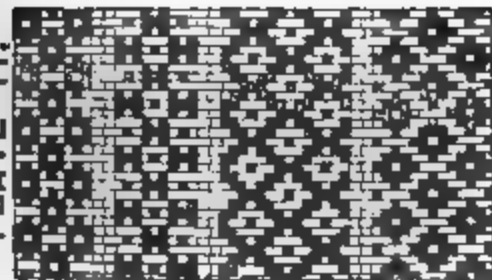
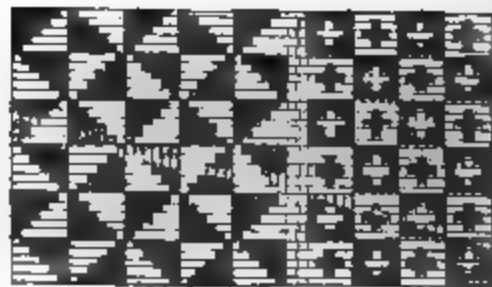


PLATE 11.

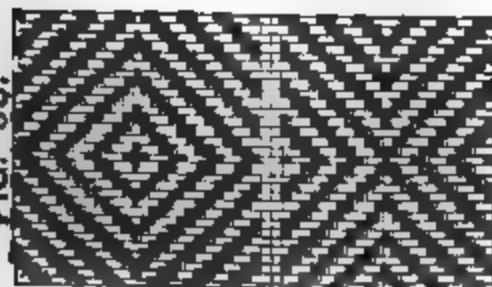


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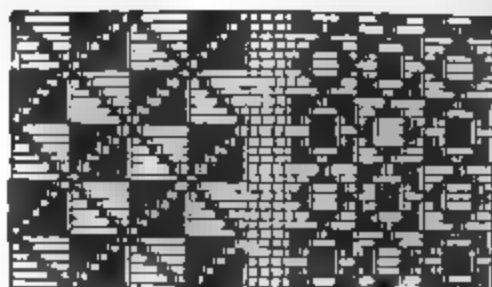


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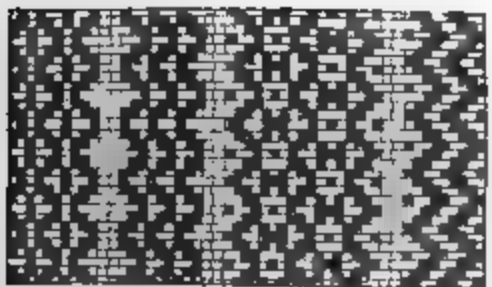
FIG. 95.



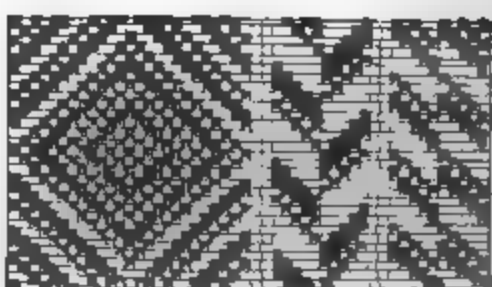
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9



10



11

PLATE 12.

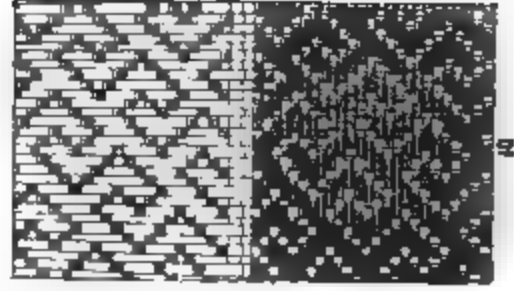
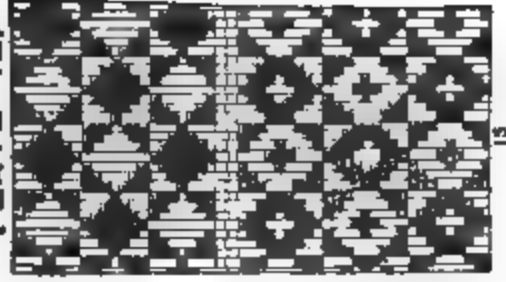
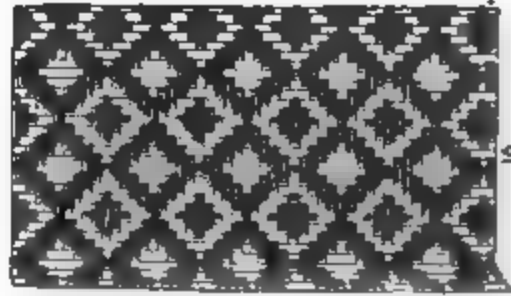
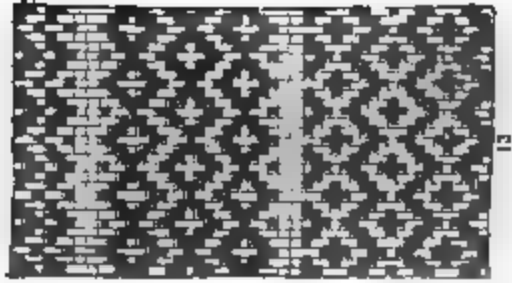
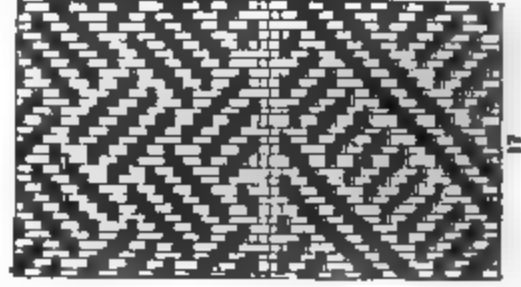
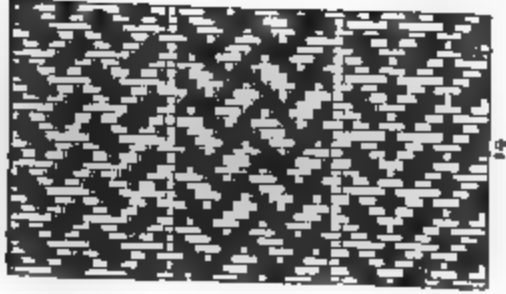


FIG. 96.



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and 1". In No. 6 the patterns introduce "3 and 3," combined with the smaller numbers.

Fig. 95.—In No. 8 we have the concentric and eccentric patterns. In working these two patterns, two strips may be put in the needle at the same time; one strip being pushed to the top, and the other to the bottom. The last strip to be put in is the one in the centre of the pattern. The diamond patterns in No. 9 are the exact opposite of each other. In No. 10 we have the compound broken steps, and in Nos. 11 and 12 more difficult patterns are shown.

Figs. 96 and 97.—In Nos. 13 and 14 the "law of opposites" is again seen, and also in No. 18.

FIG. 98. (See Coloured Plate 9.)

- | | |
|-------------------|-------------------|
| 1. Pin-tray. | 4. Spill-case. |
| 2. Needle-book. | 5. Hair-tidy. |
| 3. Blotting-case. | 6 and 7. Baskets. |

It is not wise to paste the children's work in a book; it should be put to some practical use whenever possible. Fig. 98 shows a few examples of how the mats may be utilised.

No. 1.—An oblong or square mat pasted on cardboard, and turned up the width of the border all round, makes a pretty Pin-tray.

No. 2.—The Needle-book is also made from the oblong mat, which in this case is folded exactly in half, the flannel for the needles being secured by a length of ribbon tied round.

No. 3.—The Blotting-case has two oblong mats; these are button-holed and stitched together, and the blotting-paper is kept in its place by a length of ribbon tied round.

No. 4.—The Spill-case is made by joining together the two short sides of an oblong mat. The edges should overlap about half an inch.

No. 5.—The Hair-tidy is made from a square mat. Two

of its sides are button-holed and sewn together as shown in sketch.

Nos. 6 and 7.—Baskets. In this case the paper is woven in and out of sticks, which make the framework of the basket. The cardboard pieces for these baskets can be purchased in packets.* The rim and bottom are connected by the sticks, the holes in the one part corresponding to those in the other.

* See Appendix 6.

CHAPTER XX.

PAPER-FOLDING.

1. Introductory.—Paper is one of the most common and plentiful objects of daily use, and for this reason it is often wasted by children, but this tendency should be discouraged, for the child is to be taught that everything is of use, and that nothing should be wasted.

What better could have been invented for this purpose than this wonderful Occupation, where the great Teacher shows us how a simple square of paper can be folded into hundreds of beautiful and attractive forms! A child who had learnt to put a tiny piece of paper to such noble use as this would scarcely care to destroy and waste that which is so valuable and necessary in everyday life. Perhaps the Teacher would show some of these folded forms to the children before they commenced to work, and it would act as an incentive to the little fingers to try and produce similar pretty figures.

2. Advantages of paper-folding.—(a) This exercise is well calculated to develop the use of the fingers. Great delicacy of touch is required, also precision, exactness and neatness.

(b) The child has the joy of feeling that he has produced something. Formerly the mother would fold objects for the child, but Fröbel taught the children how to do it for themselves.

(c) Paper-folding cultivates the child's sense of beauty, and strengthens his love of colour.

(d) The simplicity of the material used is in itself a recommendation. Tools are not required, the little hands being all that is necessary.

(e) The children learn the value and usefulness of paper. The Teacher might preface the lesson by saying, "Long ago, when people did not know how to make paper, they wrote upon the skins of animals that had been scraped and made smooth; these were called parchment, and cost a good deal of money. Other people would write, or scratch on stone or wood. How funny it would be to have a note written on a chip of wood! In those days the children would not have numbers of pretty picture books, as we have. We should be glad that we have paper for books, and parcels, and writing, etc., and we should take care not to waste or spoil it."

3. Materials used.—A piece of paper four inches square (obtained in packets of 100 *) should be given to each child. Paper glazed and coloured on one side only is best, and red is a good colour to start with. If the class is large, the Teacher should have a square four times the size of the children's, so that all can see it quite well.

4. How to proceed.—"Look at your piece of paper, what do you notice about it?" "It is red on one side, and white on the other. The coloured side is more shiny than the other. The paper is smooth, and light, and thin, and it will bend. It has four sides all the same length, so it is square." "Measure these sides. They are each four inches long" (if the children are sufficiently advanced, they may be asked how many inch-squares are covered by the four-inch square of paper). "Hold the square by one corner and shake it. What do you hear?" "We hear a rustling sound." "What have you seen that is like the paper in shape?" "A pocket-handkerchief, a window, etc." "Now place the square on the desk with one of its sides towards you, and

* See Appendix 11.

the white face uppermost. Which is the right side? Which is the left? Which is the top? Which is the bottom? Take the bottom side, using both your hands, and fold it to the top. It must not overlap the top side, nor come short of it, but must just reach it." If the Teacher fastened her square of paper at the two upper corners to the blackboard, and then folded it, the children would be able to see exactly what was meant. The crease is made by passing the back of the thumb along the paper.

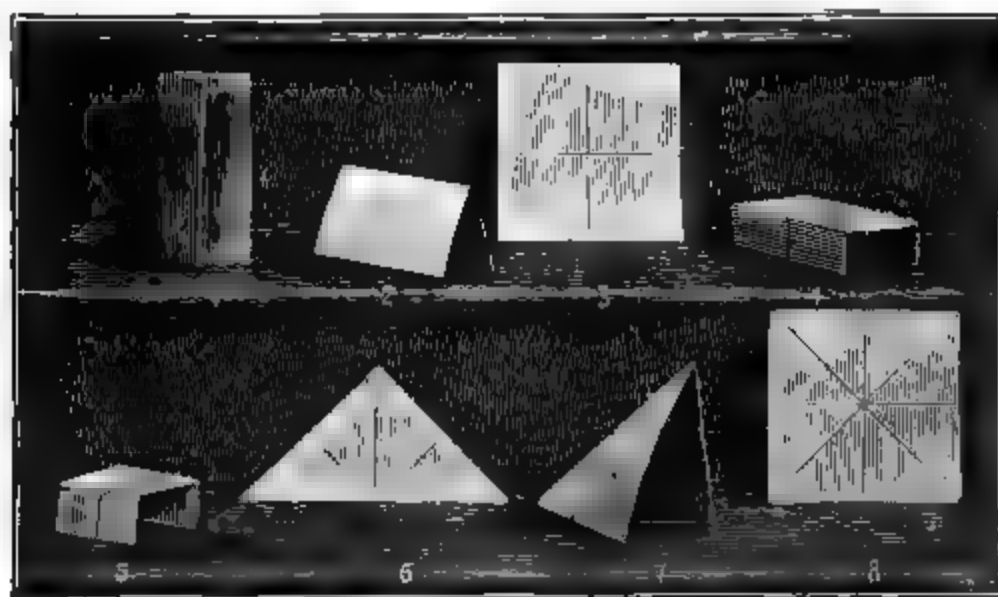


FIG. 99.

- | | |
|---|---|
| 1. Book or Screen. | 5. Stool. |
| 2. Tunnel. | 6. Shawl. |
| 3. Paper creased to show
four squares. | 7. Tent. |
| 4. Table. | 8. Paper creased in every
direction. |

No. 1.—The first crease, made by folding the paper side to side, gives us a Book or Screen.

No. 2.—Place No. 1 downwards, so that the crease is at the top, and we have a Tunnel.

No. 3.—Now the paper is folded side to side in the opposite direction, and when it is opened out, we shall see

that the creases have divided it into four squares. (The creases are shown by lines in the illustrations.)

No. 4.—Next we take one side, and fold it exactly to the line which runs across the *middle* of the paper. The opposite side is then turned round towards us, and folded to the same line; this opened out gives the Table.

No. 5.—Fold the two sides again to the centre, so as to make the oblong, and then, by folding the two short sides to the centre line, we make a smaller square, and this opened out is a Footstool.

In No. 6 we see the square of paper folded from corner to corner (the Shawl).

In No. 7 the Shawl opened out makes the Tent.

No. 8.—The square is now creased in every direction, and with it we proceed to make the foundation-form for objects, etc.

FIG. 100. (See Coloured Plate 13.)

No. 9 shows one corner folded to the centre; this form may represent a sailing boat.

In No. 10 we have the opposite corner folded to the centre (to do this the child should turn the boat, so that the top of the sail is nearest him).

No. 11 shows the third corner folded to the centre, and gives us the open envelope.

In No. 12 all the corners are folded to the centre, and we have the envelope closed.

No. 13.—Now turn the envelope over, so that the smooth side is uppermost, and fold one corner to the centre.

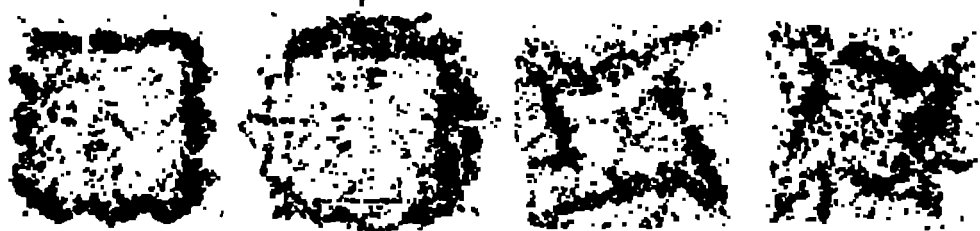
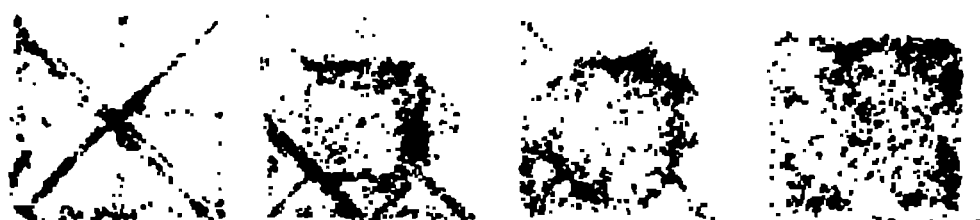
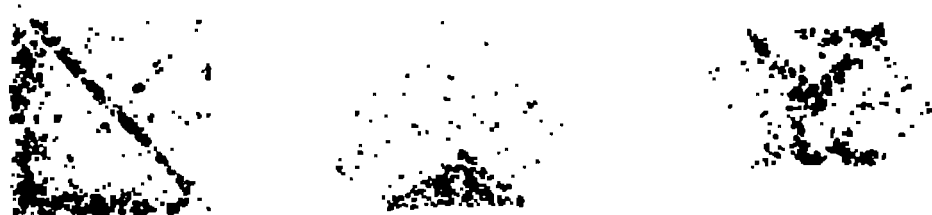
No. 14.—Fold the opposite corner to the centre.

No. 15 is the open envelope, but of smaller size.

In No. 16 all the corners are folded to the centre.

No. 17.—Turn No. 16 over, and we see four small squares.

No. 18.—Fold this from corner to corner, so that the *four squares* are *inside*, and we have the foundation-form for the “crown” and following figures.



[illegible]

the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015.

• **Prüfung** – 1. Termin: 1. April 2019, 14.00 Uhr
2. Termin: 1. Mai 2019, 14.00 Uhr

1. *What is the purpose of the study?*
 2. *What are the research questions or hypotheses?*
 3. *What is the study design?*
 4. *What is the sample size and selection criteria?*
 5. *What are the variables being measured?*
 6. *What are the data collection methods?*
 7. *What are the results of the study?*
 8. *What are the conclusions and implications of the study?*

1. The first step is to identify the **main idea** of the passage. This is usually found in the first sentence.

FIG.100.

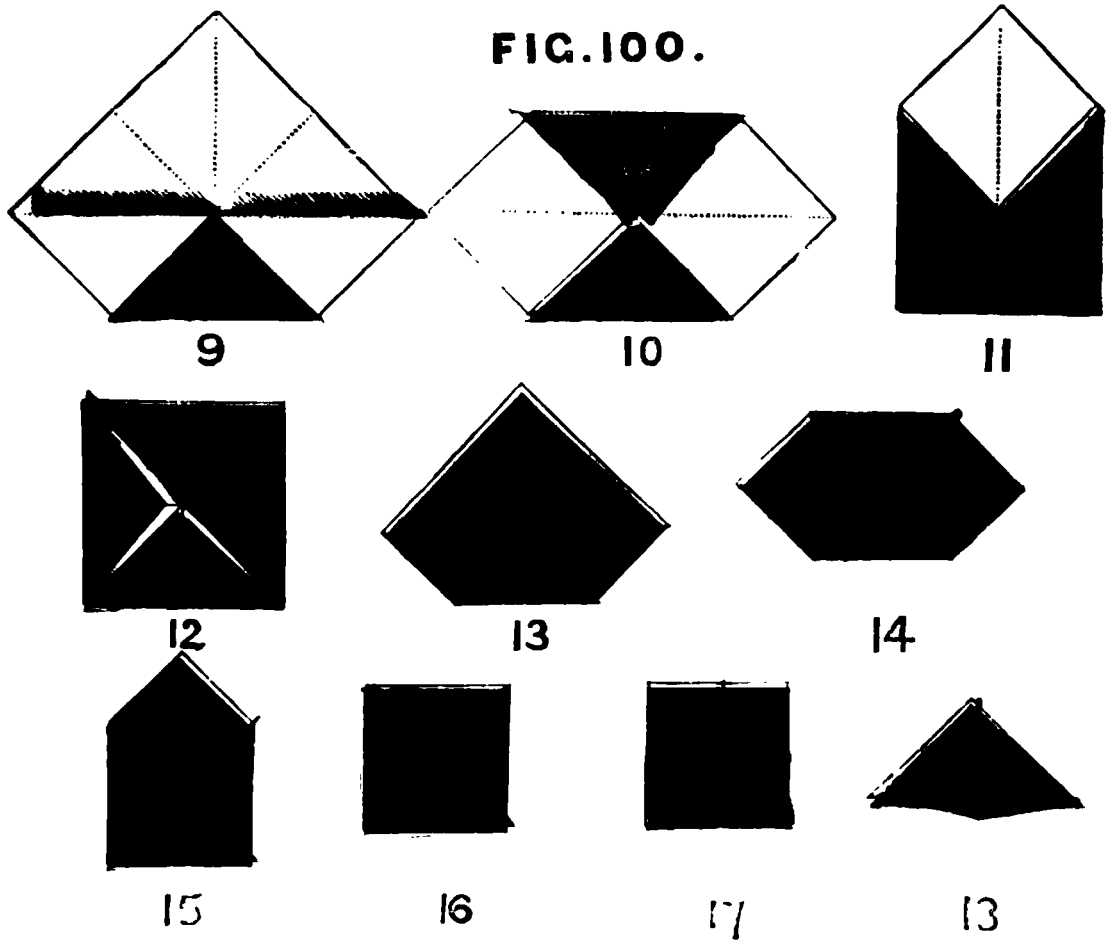
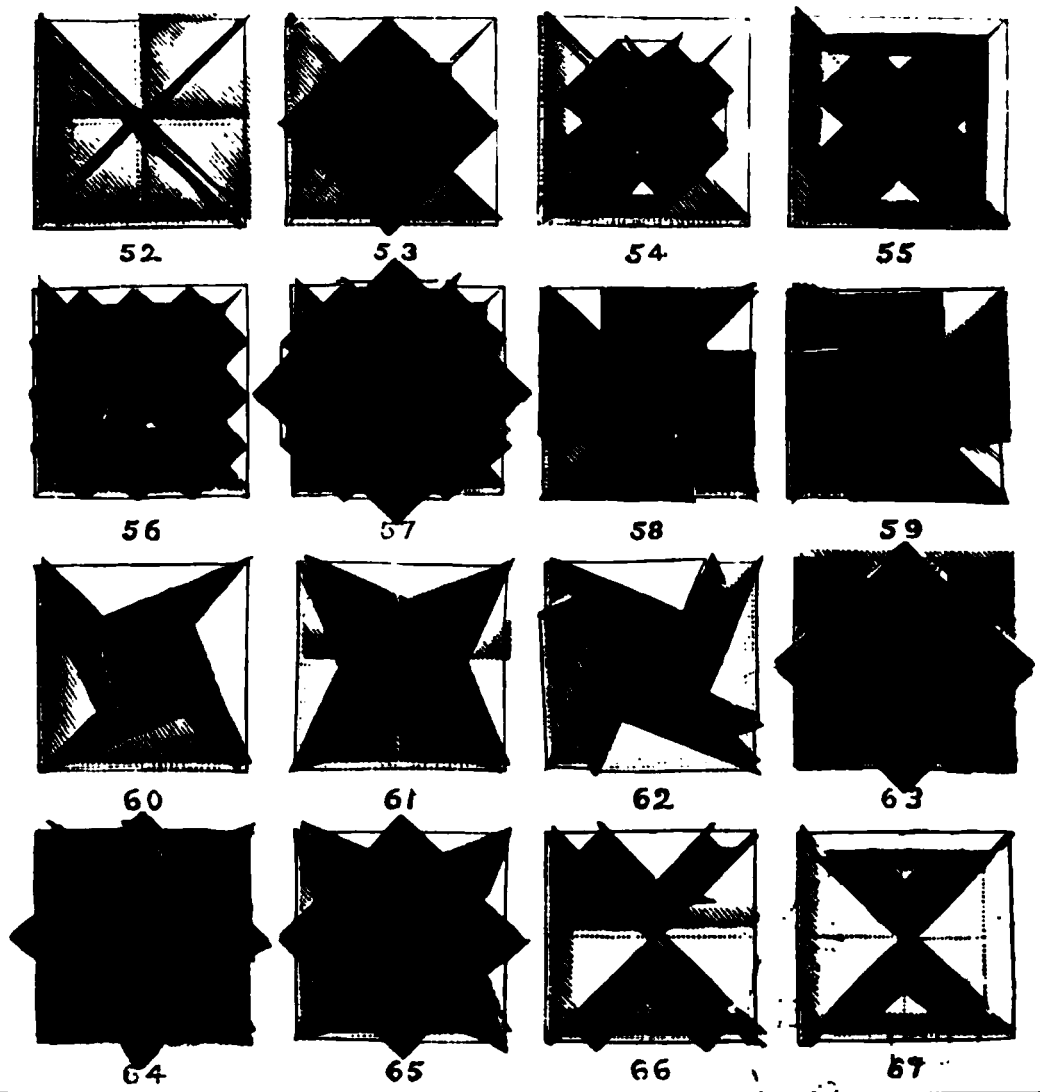


FIG.107.



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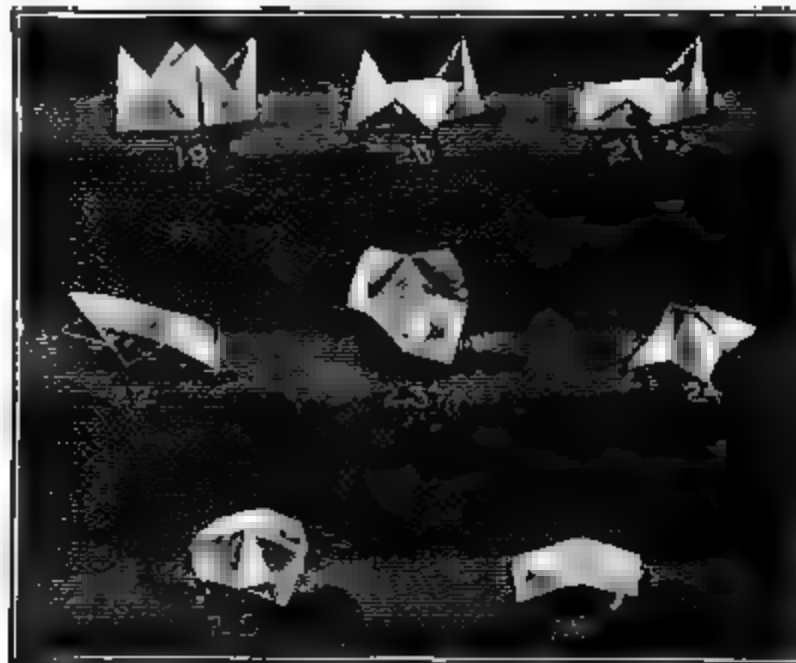


FIG. 101.

19. Crown.
20. Bed.
21. Cradle.
22. Trough.

23. Cruet.
24. Seed Vessel.
25. Salt-cellar.
26. Table and Cover.

No. 19.—Hold the foundation-form (No. 18, Fig. 100) in the left hand, and with the forefinger of the right hand lift up carefully from the inside the left little square. The form is then held in the right hand, and the opposite square is raised by the forefinger of left hand, and we have the Crown.

No. 20.—The Bed. This is made from the Crown by folding the points which stand up in the centre, outwards.

No. 21.—The Cradle. One of the little squares which were made to stand up is now folded down inside, exactly in half.

In No. 22 both the little squares are folded down inside to make the Trough.

No. 23.—Make the original form (No. 17, Fig. 100), push the centre upwards, and then raise each square to make the Cruet.

No. 24.—Push the centre of the Cruet downwards to make the Seed Vessel.

No. 25. The Salt-cellar is made from the Cruet by folding the loose corner of each little square to the opposite corner inside.

No. 26.—Table with cloth. Take No. 17, Fig. 100, and fold the point of each little square to its opposite corner outwards, then turn it over so that the four squares are below. Now fold each point of the form to the centre, these are the four points on which the table stands, and the Table-cloth is formed by the small squares.

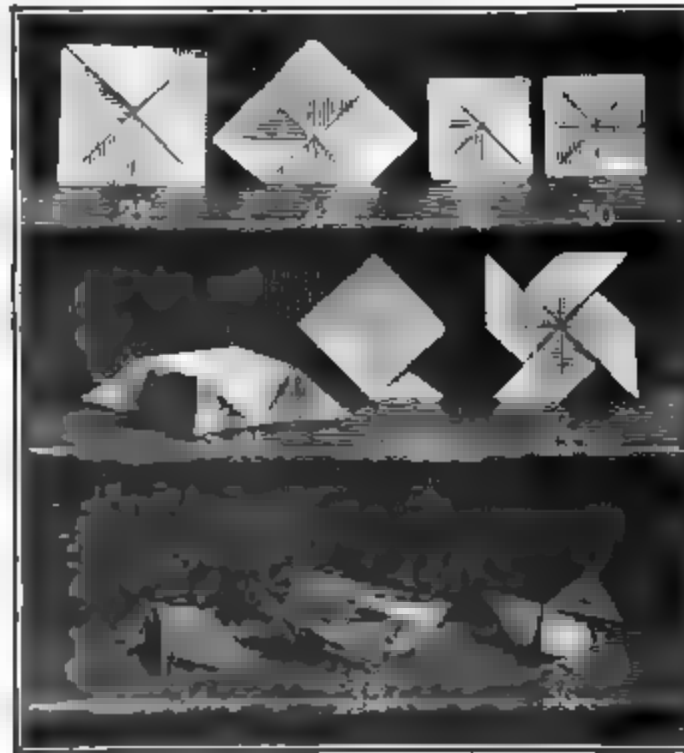


FIG. 102. Windmill form.

27 to 30. Preparation of form.

31. Table-cloth.

34. Claw.

32. Kite.

35. Double Boat.

33. Windmill.

36. Duck.

In No. 27 we see the paper folded exactly as it was in No. 12, but instead of turning the form over and folding the

points to the centre of the smooth side, we keep it with the smooth side downwards.

No. 28 shows one point folded to the centre.

No. 29 shows all the points folded to the centre.

No. 30.—Turn No. 29 over, and we see an unbroken surface, instead of the four small squares.

No. 31 shows the four corners drawn out to make a Table-cloth.

No. 32.—The Kite has one corner drawn out.

No. 33.—The Windmill has all the four corners drawn out.

No. 34.—By folding together three arms of the Windmill in one direction, and one in the other, we make the Claw.

No. 35.—Fold one of the three points of the Claw backward until it is in a line with the hind Claw, and turn it upside down for the Double Boat.

No. 36.—Turn the Claw (No. 34) upside down. Raise the centre point of the three until it makes a right angle with the hind Claw, and then fold it over *outwards* for the Duck's Head. The points on each side the "head" are folded back for the "feet".

Suppose the "Table and Cover," "Cruet," and "Salt-cellar" to have been made by three different groups respectively, the following lines would be appropriate:—

Come to dinner, children dear,
Ready stands the Table here,
With its Cover clean and white;
Surely 'tis a welcome sight.

You a Salt-cellar have made,
Knives and forks will soon be laid,
Cruets, dishes, plates as well,
Now I think we'll ring the bell.

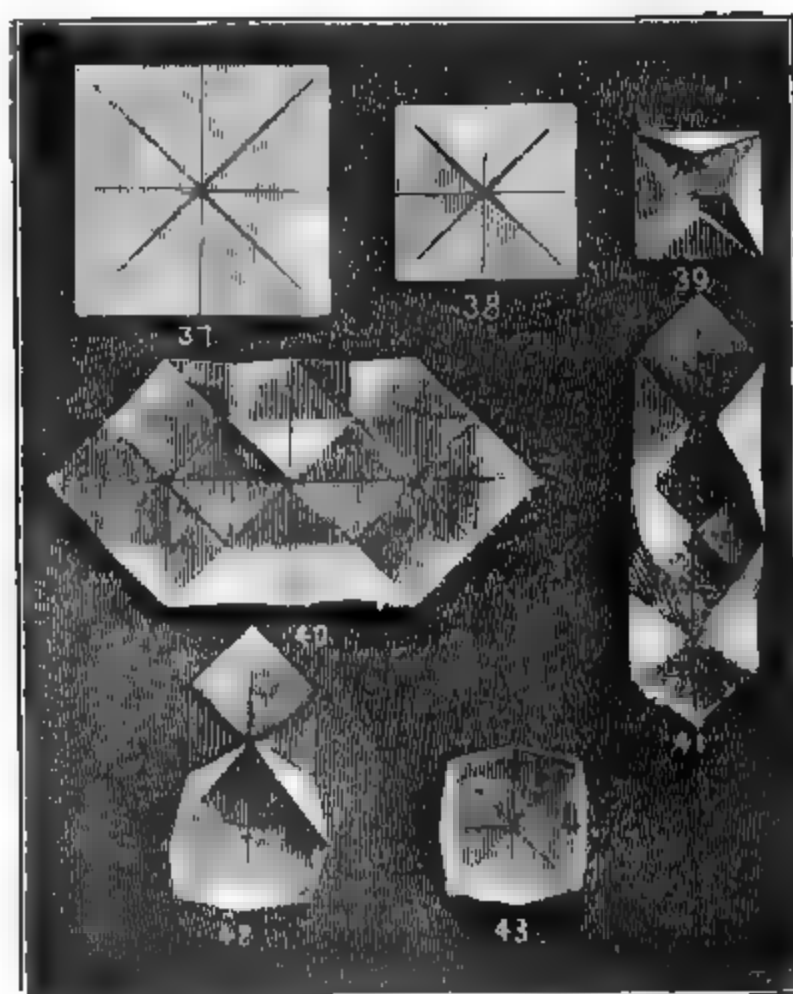


FIG. 108.

The open box (No. 43) is so useful for holding beads, shells, etc., that it is worth while to illustrate fully the method of making it. The box shown here and again in Fig. 79, *Bead Work*, is made from a piece of stout paper, eight inches square.

No. 37.—First fold the four corners to the centre.

No. 38.—Then without turning the form over, fold every corner to the centre again, as in the form (No. 29, Fig. 102) from which the "windmill" figures are made.

No. 39.—The next step is to fold every corner to the centre again, without turning the form over.

No. 40 shows the square half opened.

In No. 41 the folded sides are turned up half way to form two of the sides of the box.

No. 42 shows one of the open ends turned over.

In No. 43, the complete box, the other end is turned over, and the four corners of the paper lie together in the bottom of the box.

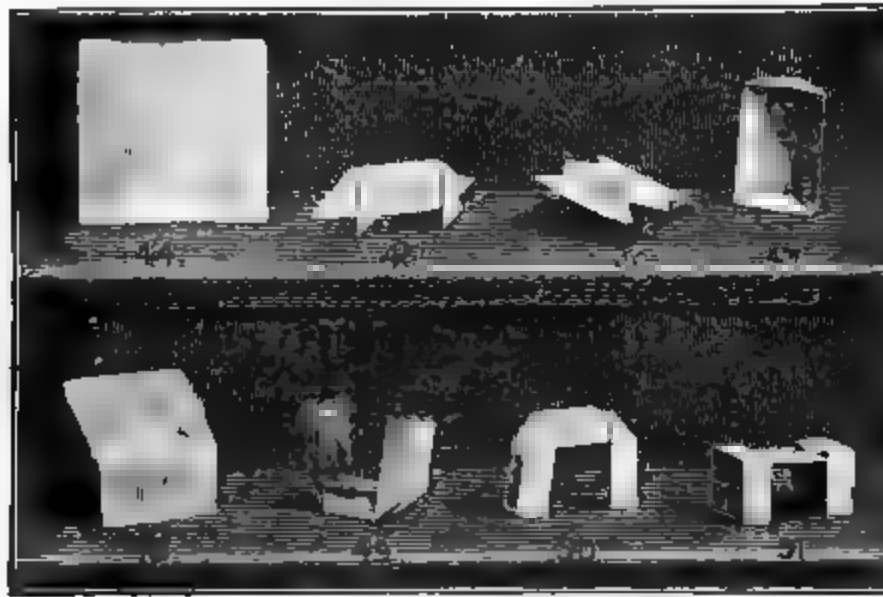


FIG. 104.

44. Foundation-form.

45. Pig.

46. Double Trough.

47. Corner Cupboard.

48. Sofa.

49. Sail Boat.

50. Arch.

51. Form.

No. 44.—The Foundation-form for the figures of 104 is obtained in the same way as the Stool, No. 5, Fig. 99. When opened out it shows the square divided into sixteen smaller squares.

No. 45.—The Pig. Fold the two opposite sides to the centre, then turn the paper over, so that the smooth side, which shows an oblong shape four inches by two, is uppermost. Fold in halves lengthwise, and then fold the corners backward and downward to form the legs.

No. 46.—The Double Trough is made from the preceding figure turned upside down.

No. 47.—In the Corner Cupboard the opposite sides are folded to the centre, the corners are folded over each other and then turned in to form the top and bottom of the cupboard.

No. 48.—The back of the Sofa is double, and the arms are formed by folding the outside square of each side backward diagonally.

No. 49.—To make the Boat cut the foundation-form in halves, and then fold it into four, lengthwise, and into eight, crosswise, so that it shows thirty-two squares.

No. 50.—The Archway is the boat turned upside down.

No. 51.—The Form is made from the Arch. The centre ridge of the Arch is flattened and forms the seat, and the two squares on each side of the central ridge are folded over the latter, so that their edges meet in the middle.

FORMS OF BEAUTY.—FIG. 105. (See Coloured Plate 14.)

This figure shows eight simple forms combined so as to make a pretty pattern. No. 10 in Fig. 100 is the form used.

The two opposite corners are folded to the centre. Four of these forms are then put together to make a cross, and four others are placed in the four angles of the cross. Each child might make two of these forms, and then combine his work with that of three others to make the figure illustrated.

FIG. 106. (See Coloured Plate 14.)

Here again we have simple forms combined. In the former figure opposite corners were folded to the centre, here the two contiguous sides are folded to the centre crease.

FIG. 107. (See Coloured Plate 13.)

All these figures are folded from the simple foundation-form, the closed envelope, No. 12, Fig. 100. In No. 53 the



FIG. 10

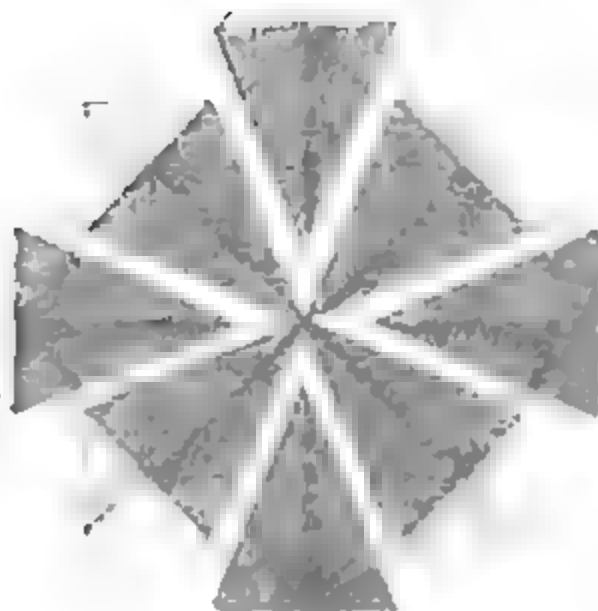
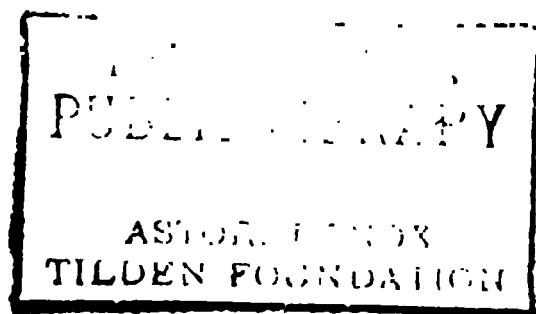


FIG. 106



four corners are turned backward. In No. 54 they are turned towards the centre. The figures are evolved from each other. No. 59 is the opposite of No. 58, and so on. Nos. 66 and 67 show only two sides folded. The Forms of Beauty which can be produced from the square of paper are endless.

In addition to the foundation-form illustrated above, Nos. 16 and 17 in Fig. 100, and Nos. 38 and 39 in Fig. 103, may all be used as foundation-forms, and worked into figures numerous and beautiful. One student alone made over 300 of these Forms of Beauty.

CHAPTER XXI.

PAPER-CUTTING.

1. Introductory.—Some have objected to this Occupation on the ground that scissors are not suitable instruments for a little child. But we all know how very eagerly the little ones occupy themselves in using them, whenever they get the chance, and how often valuable things have been destroyed by their misguided use. This Occupation is another instance of Fröbel's genius for observing a child's natural inclination, and directing it into the right channel. If the child does possess an inborn desire for cutting and shaping, is it not much better to teach it to do this according to fixed laws, which produce beautiful forms, than to let it waste time and energy in destroying material and making an untidy litter?

2. Cutting as a preparation for later work.—It is very helpful to later work in school life, if the child learns how to use a pair of scissors rightly, so that he or she knows how to cut smoothly and correctly. Any one who has had experience in teaching older girls "cutting out" will know how clumsily and timidly they handle a pair of scissors, and what uneven, jagged edges are produced. The same is true of classes for dressmaking. In paper-cutting the plane surface is again dealt with, but in this case it is divided and reconstructed in a different form. Here again is a lesson in economy, for every piece is used. This Occupation is not suitable for large classes, as will be seen from the materials used.

3. Materials used.—(a) *Square of Paper*, which has already been described in the previous chapter.

(b) *Scissors*. These should be blunt at the ends of the blades. There should be a conversation about different kinds of scissors and their uses. The largest are called shears, these are used for shearing sheep, etc. Then there are dressmakers' and tailors' scissors, and others, which are used only for button-holes, and have a little piece cut out of each blade. Let the children see as many different specimens as possible, and speak about the Scissors-grinder, and the round stone on which he grinds.

(c) *Gum*. The unprepared gum should be shown to the children, and they will be interested to know that these pretty, yellow balls are the juice of a tree, which grows in hot countries far away. The gum oozes out of the tree, and is found on the bark. Before we can use it, we must pour water over it, and let it stand all night.

(d) *The Brush*. This should be made of camel's hair, and an interesting conversation would ensue about the camel.

4. How to proceed.—The first square given should be folded exactly in halves by the child, and carefully creased; then he cuts carefully along the crease, and two oblongs are produced. These again are each folded in halves, and cut. When this is done the Teacher asks, "How many pieces have you now?" "We have four." "What shape are they? Put one of the squares on your table, and see how many of the little squares are covered by it." "Four are covered." "Fold each square in halves and cut again." The child has now produced eight oblongs. Each of these is again folded in halves, and cut, and the child finds that he has sixteen one-inch squares. Let him take a four-inch square of paper, and place the small squares upon it, he will thus learn that it contains sixteen square inches. The small squares of paper may be threaded through the middle, on to a piece of string, with beads, or bits of straw between

(the latter should be one inch long). Or the four-inch square of paper may be cut into oblong strips, and these again may have the ends gummed together to form links in a chain, each succeeding strip being passed through the last link, before its two ends are fastened together.

FIG. 108. (See Coloured Plate 15.)

To prepare the ground form for all the figures shown, proceed as follows:—

No. 1.—The paper (four inches square) is folded from corner to corner.

No. 2.—The corner marked *b* in No. 1 is folded over to the corner marked *a*. The paper is now four-fold.

No. 3.—The corner marked *d* in No. 2 is folded over to the corner marked *c*. The square of paper is now eight-fold, and the closed end is towards the right.

N.B.—The ground form No. 3 should be held in the left hand, with closed side towards the right, for cutting.

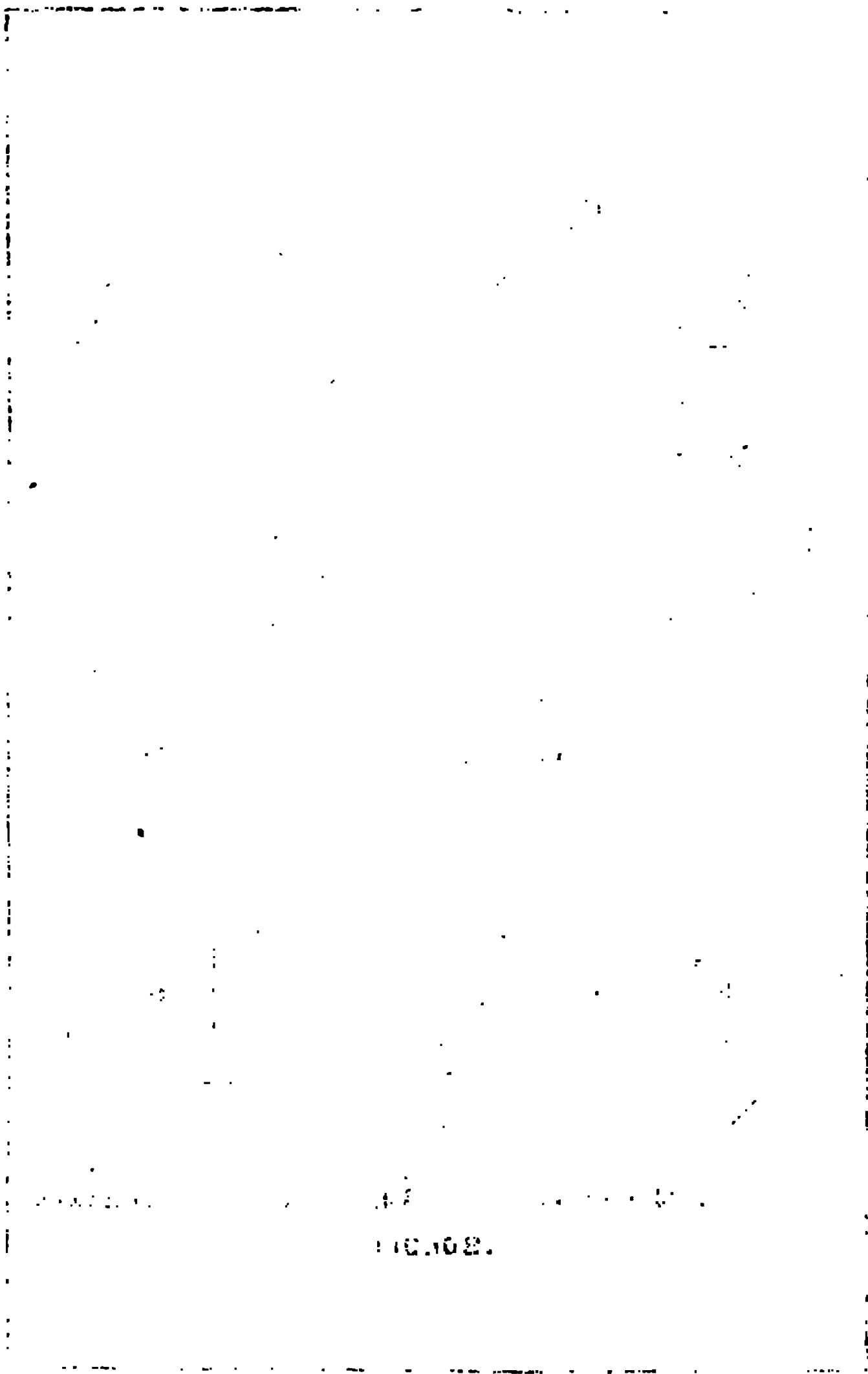
No. 4.—The ground form is creased as shown by the lines in No. 4 *a*. It is then cut exactly in halves, and we get a small square and four triangles, which are arranged to form a pattern No. 4.

No. 5.—Hold the ground form with the closed end towards the right, and cut as shown in No. 5 *a*. This gives an octagon and four smaller triangles.

No. 6.—This cut is the opposite of No. 5, and being taken from the closed side, gives us a small square, while the larger square shows a hollow centre.

No. 7 is a combination of Nos. 5 and 6.

No. 8.—Here we have two cuts, both on the closed side of the form. In every figure illustrated, the ground form is held with the *closed* side to the right, and the *open* corners to the left, and in every cut the paper is eight-fold.



110.102.

As a result of the above, the following is suggested as a possible explanation for the observed differences in the α and β relaxation times of the two polymers. The α relaxation of the polyimide is due to the motion of the polymer backbone, which is hindered by the presence of the imide groups. The β relaxation of the polyimide is due to the motion of the imide groups, which are hindered by the presence of the polymer backbone. In the case of the polyimide, the α relaxation is the dominant one, and the β relaxation is much weaker. In the case of the polyimide, the α relaxation is the dominant one, and the β relaxation is much weaker.

the same time, and I am not satisfied with the
 results of the investigation. I am not sure, and we
 are all in a state of confusion and are all
 in a state of confusion. No.

Now, \mathbf{b} is a vector pointing from the origin to the end towards which the particle is moving. So $\mathbf{b} = \mathbf{r}$. This gives an equation for \mathbf{r} as follows:

Next, a T -invariant \mathbb{R}^2 -action on $\mathbb{C}P^2$ is obtained by taking $\mathbb{C}P^2$ as the closed orbit of the \mathbb{R}^2 -action on $\mathbb{C}P^2 \times \mathbb{C}P^2$, with the \mathbb{R}^2 -action on $\mathbb{C}P^2$ induced from the \mathbb{R}^2 -action on $\mathbb{C}P^2 \times \mathbb{C}P^2$.

When the paper is folded on the other side of the middle line, the ground line is again used as a center, and the paper comes to the same size as before. The paper is eight fold.

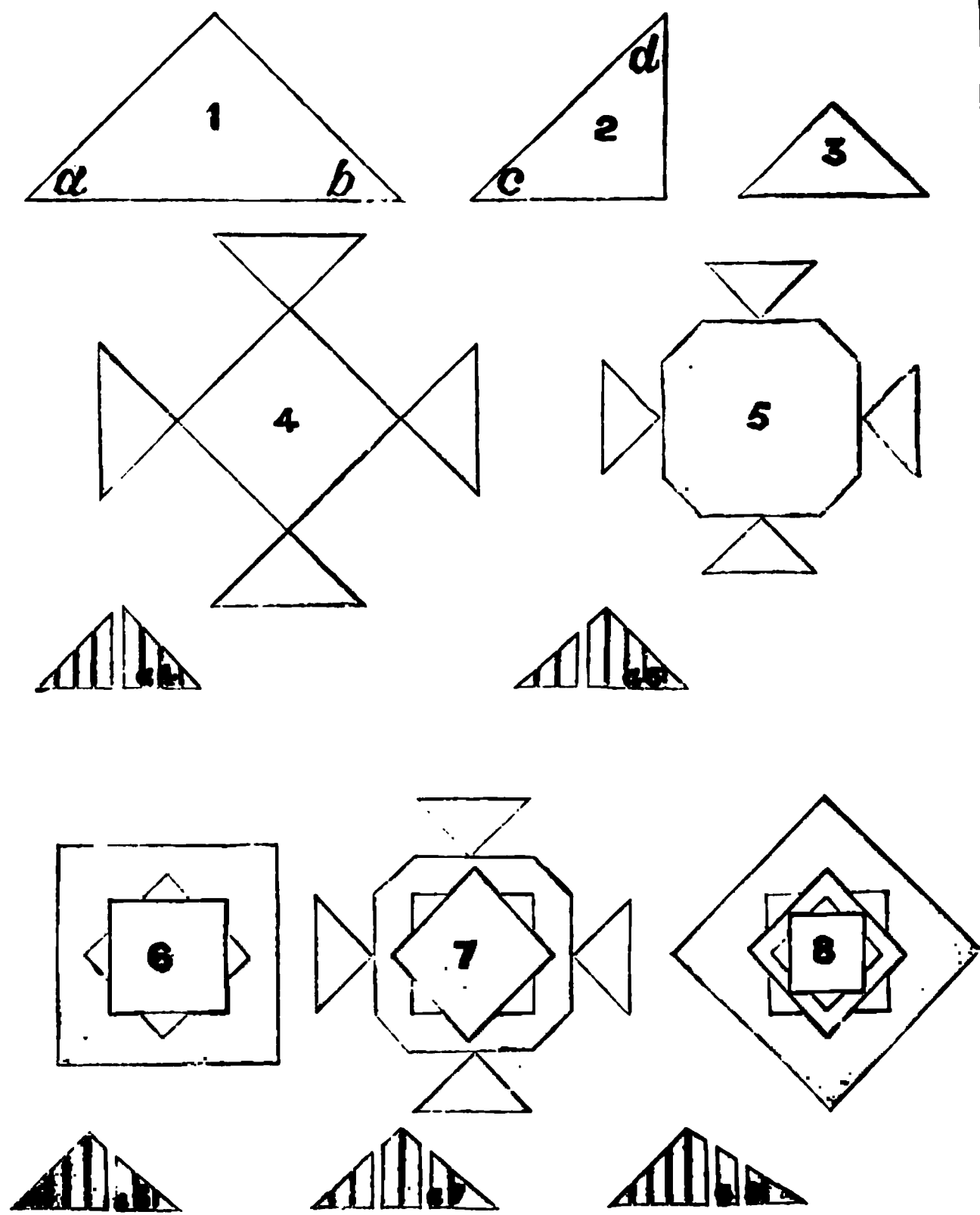


FIG.108.

DEPARTMENT OF THE ARMY

AS ORDERED BY
TILDEN FOUNDATION

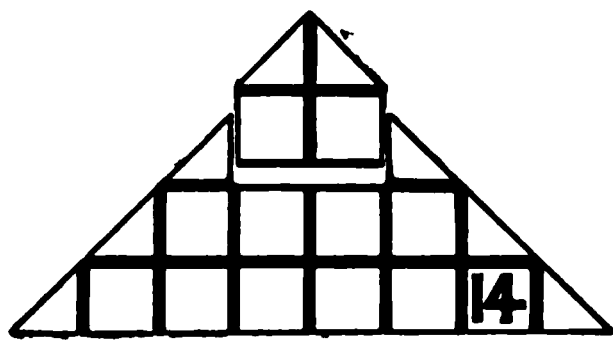
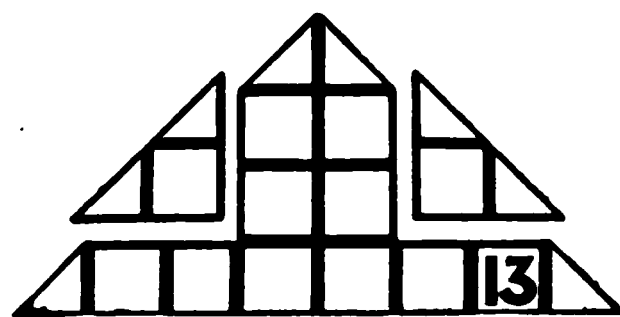
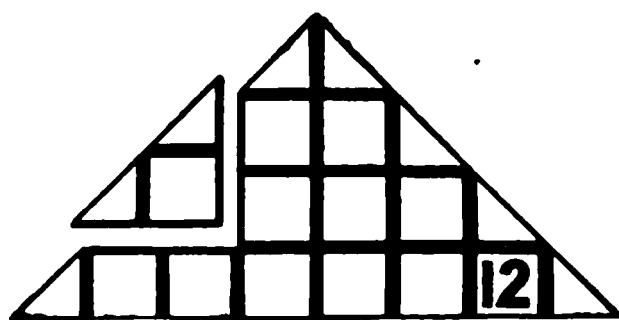
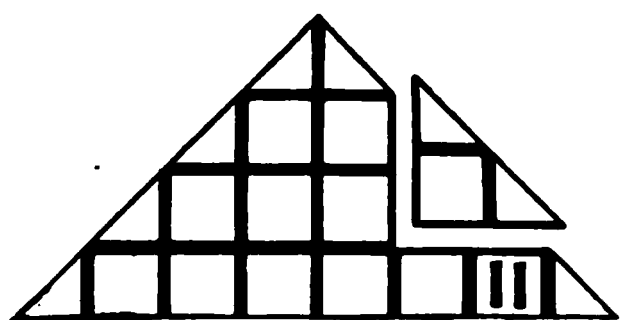
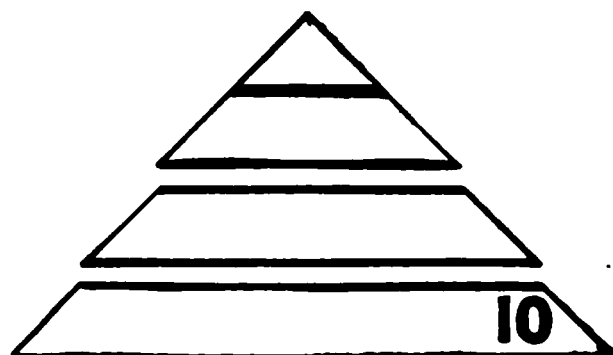
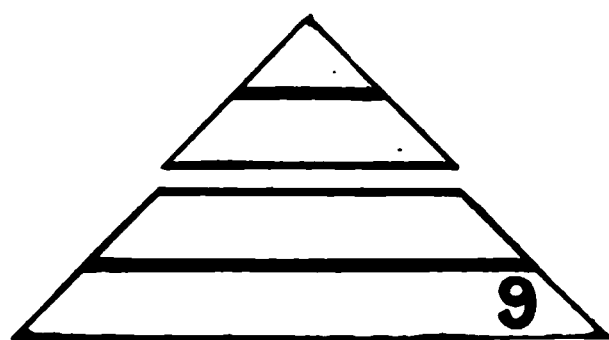


FIG. 109.

No. 9.—In No. 9 the eight-fold ground form (No. 3, Fig. 108) is creased horizontally, and cut on the middle crease as shown. This gives a pretty cross and four triangles; the latter may be arranged according to fancy in the angles formed by the cross.

No. 10 has two cuts, one on the centre crease, and the next half way between the centre crease and the base line. As the result of these cuts, we have a cross, four small triangles, and four L-shaped pieces, all of which may be combined to make a pretty design.

The vertical and horizontal cuts may be combined in a variety of ways which are not shown here.

Cutting out.—The remaining illustrations show pieces cut out of the ground form, which is now creased in both directions.

No. 11.—Hold the ground form with the closed side towards the right, and cut through its eight folds as shown. We get four tiny squares of paper, and the large square shows four hollow squares.

No. 12.—The same cut is now taken on the opposite side, *i.e.*, from the open side of the ground form, and this gives a very pretty centre piece, and eight small triangles, which may be arranged round the centre piece.

No. 13 combines the cuts of the two previous figures, and provides material for a more elaborate design.

No. 14 is cut from the top, and gives a prettily shaped centre piece, and four irregular pieces resembling a crown in shape.

CHAPTER XXII.

PEA WORK.

1. Introductory.—This Occupation brings us back again to the form with which we started, *viz.*, the Sphere, and the line is combined with it to make objects. We have had *solid* figures, followed by the *plane*, then by the *outline* of the *plane-lines*, and next by the *point*. Now we have the outline of the solid figure represented, and the child is thus enabled to see the construction of forms, which is a great help in model, and other kinds of drawing. Moreover, the forms have this great advantage, that they are made by the child himself.

2. Materials used.—The original materials were peas, softened by being soaked in water, and sticks, considerably thinner than those used for stick-laying. If the latter kind is used, each stick must be sharpened, or it will split the pea.

Wires and corks can be used if preferred. Each cork is in the shape of a tiny cylinder, and the wires, which are pointed, are about the thickness of a hair-pin, and may be obtained in five different lengths. The drawbacks to the use of these materials are that the corks cost more than the peas, and soon break with the frequent perforations; the wires bend, and the objects are not so pretty as those formed by peas and sticks. The latter materials are used in these illustrations. The peas should be soaked for twelve hours and then dried for one hour. The teacher will talk to the little ones about the peas, and show them the pod where the peas

lie so snugly all in a row. They will remember other kinds of seeds that grow in pods, such as haricot, French and broad beans, also the cotton seeds. Let each child examine a pea, and find the growing point, or "eye," as they will perhaps call it, also the "ring" round the pea. If we open the pea along this ring, we shall find that it is made up of two halves, and the "eye" will now be more clearly seen. The teacher would perhaps let her pupils plant a few of the soaked peas, so that they might see how the root shoots downward from the "eye," or growing-point, and how the stem shoots upwards.

If the finer sticks are used the children may break them into the required length, measuring it on the Kindergarten table.

3. How to proceed.—We will suppose that each child has four sticks two inches in length and four peas. Teacher says: "Take up one pea in your left hand, and a stick in your right, and push the end of the stick gently into the pea. Be careful not to put the stick near the 'ring' of the pea, or it will split in two. Now take another pea and put it on the other end of the stick. This looks like something that you drill with." "It is like a dumb-bell." "Another dumb-bell is made in the same way, and now we have two alike—a pair of dumb-bells. What else can you think of that go in pairs?" "A pair of hands, feet, shoes, gloves, etc." Two children may place their dumb-bells together, and see that two pairs make four, or three pairs may be put together to make six, and so on. "You have now used all your peas, but there are two sticks left. Lay the dumb-bells on the table two inches apart. Take the two remaining sticks and place them between to form a square. They must be put in very carefully so as not to break the peas." The various angles can be made with this Gift, also all the geometrical figures that have previously been shown.

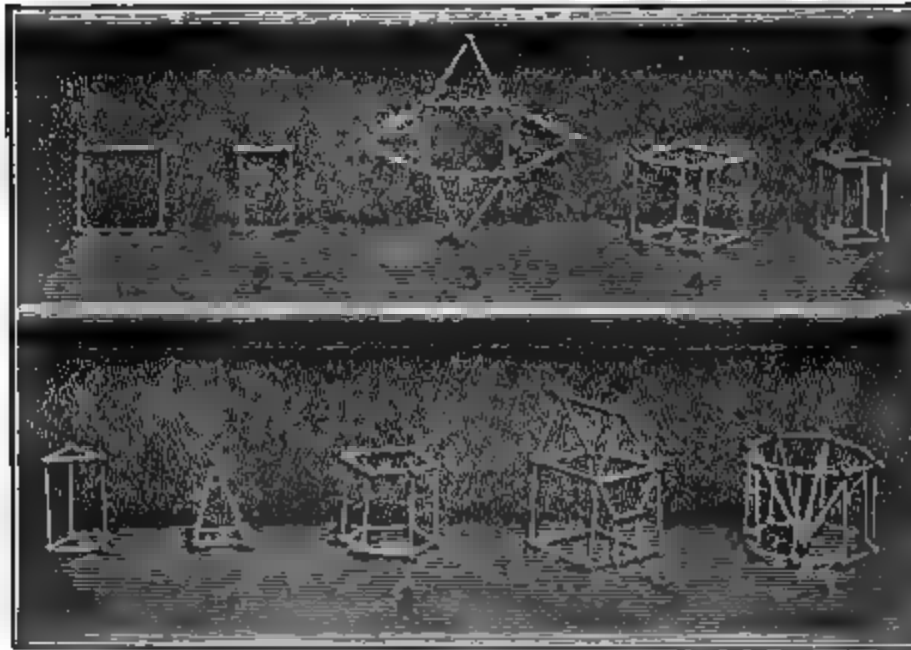


FIG. 110.

- | | |
|-------------------------------------|----------------------------------|
| 1. Square. | 6. Triangular Prism. |
| 2. Oblong. | 7. Pyramid. |
| 3. Square with four tri-
angles. | 8. Hexagonal Prism. |
| 4. Cube. | 9. House. |
| 5. Square Prism. | 10. Octagonal Prism and
Cone. |

CHAPTER XXIII.

MODELLING IN CLAY.

1. Introductory. — Those who remember the childish delight of handling a piece of dough, putty, or clay, in by-gone days will understand why Fröbel places this amongst his Occupations. Children love to shape and mould, and are never happier than when they can indulge this inclination. They will even bite their bread into shapes when eating, so strong is this innate desire for producing forms.

2. Materials used.—Some prefer ordinary white clay* and others the terra-cotta clay.* Both these have to be kept moist. Another material is plastiline.* It is much more expensive than clay, but it has the advantage of cleanliness, and where large classes are taught this is a consideration, as it takes some time for a class of forty or fifty children to wash their hands, which must be done after an ordinary clay lesson. The plastiline can be used again and again, and unless it is made too soft by being kept in the warm hands for a long time, no portion of it adheres either to the hands or the table. The table or desk should be covered with a piece of oilcloth, and modelling knives of wood should be used.

3. How the lesson is given.—The ball is the first object made, and after this is done the children learn to estimate quantity, thus: Divide the clay into two equal halves, let these be made into balls, and then the children

* See Appendix 12.

will be able to see if they have divided it equally. Then divide these two balls into halves again, and roll each into a *little* ball; see that they are all of similar size. Now, make the large ball again, and try to take a quarter away, *i.e.*, one fourth part. It is necessary to teach this, because in modelling objects, such as the kettle, *e.g.*, a proportion must be taken away for handle and spout.

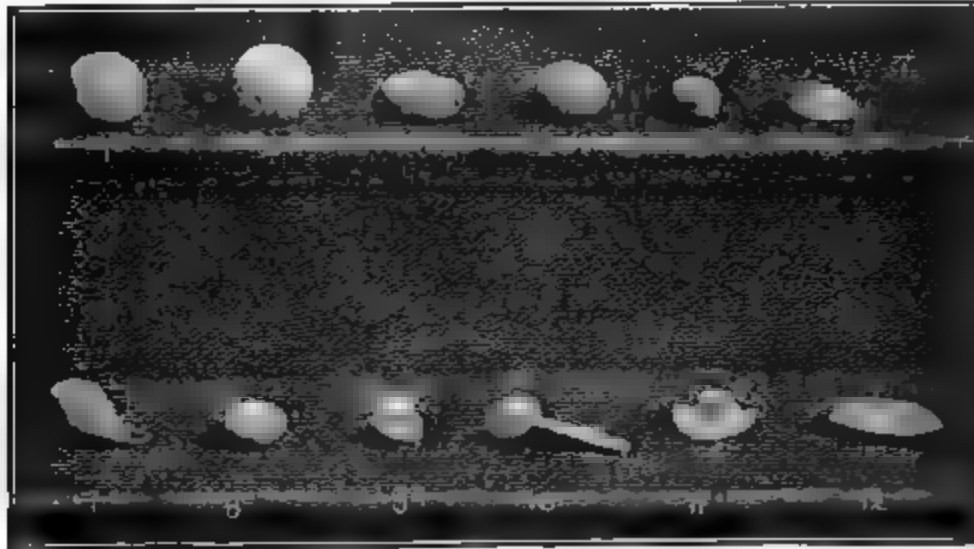


FIG. 111.

- | | |
|----------------|------------------|
| 1. Apple. | 7. Pear. |
| 2. Orange. | 8. Nest. |
| 3. Potato. | 9. Cottage Loaf. |
| 4. Egg. | 10. Mallet. |
| 5. Walnut. | 11. Hat. |
| 6. Brazil Nut. | 12. Boat. |

The above have been taken from the A. L. Box of Models.* The apple and orange, Nos. 1 and 2, are made from the Sphere. The potato, egg, etc., are made from the elongated sphere. To make the nest, No. 8, first form a sphere, and then press the thumbs in to make the hollow; roll small pieces of clay for the eggs. For the Cottage Loaf (No. 9) two spheres are needed, the larger one is flattened for the lower part of the loaf, and the smaller one

* See Appendix 18

is pricked with a pencil to make the hole at the top. The mallet, No. 10, is made from two cylinders. The hat, No. 11, has a cylinder placed on a round flat piece of clay. The latter is turned up at the sides. The boat, No. 12, is too difficult for very young children, but it is worth while to attempt it for the purpose of impressing the fact that the sharp end is the bow, and the broad end the stern; a fact which the children will remember much more readily if they are allowed to fashion these parts of the boat with their own little hands, no matter how clumsily this may be done. As we have said before, the aim of the Kindergarten is *not* to obtain perfect work from the children, but to develop their faculties.

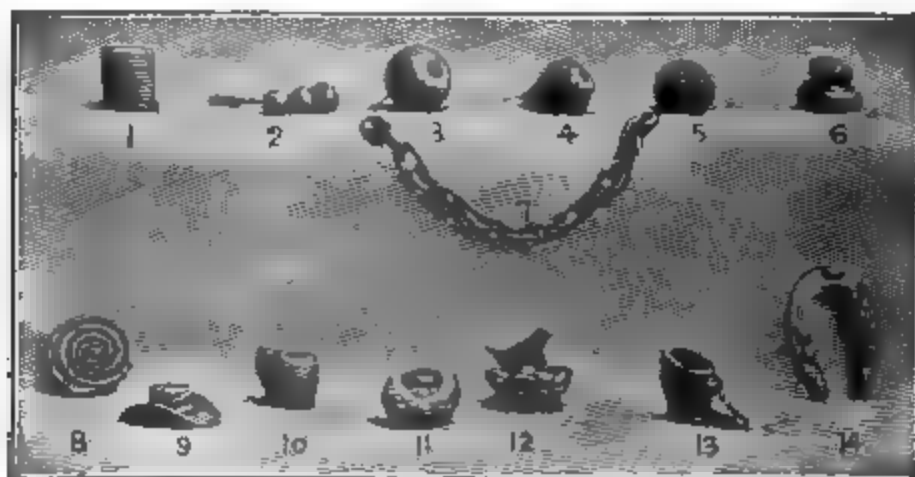


FIG. 112.

Models made by Children.

- | | |
|------------------|---------------------|
| 1. Cylinder. | 8. Ammonite. |
| 2. Cherries. | 9. Hat. |
| 3. Apple. | 10. Cup. |
| 4. Pear. | 11. Nest. |
| 5. Lemon. | 12. Nest with Bird. |
| 6. Cottage Loaf. | 13. Shoe. |
| 7. Chain. | 14. Horse-shoe. |

Nos. 2, 3 and 4.—The stalks of these are made by inserting a short length of stick. Little pieces of twig answer the purpose even better if they can be obtained.

No. 7.—The chain is a favourite model with children. First the clay is divided into equal parts. If a chain of four links is desired, divide the clay into four equal parts, roll each into a little ball, and from this make the long cylinder. The four cylinders should be equal in length. Take one, and join the two ends together; this is the first link. The second cylinder is passed through the first link, then the two ends are joined together. The remaining links are made in the same way.

No. 8 is easily made by first rolling the clay into a long cylindrical shape and then winding it round and round. A fossilised ammonite served as model for this figure.

No. 10.—The cup is made from a cylinder, the thumb being pressed in to form the hollow part.

No. 11.—The nest is made from the ball. Press the thumbs in to make it hollow, and when the correct shape is obtained mark it outside with the point of a slate pencil to roughen the surface.

No. 12.—The second nest is made differently. Two long cylindrical pieces are twisted together, and then the bottom of the nest is fashioned in the same way as the centre of the ammonite, No. 8, and the sides are made to slope outwards as shown in the illustration.

No. 14.—A long cylinder is first made, and then flattened for the horse-shoe, the “nails” being put in afterwards.

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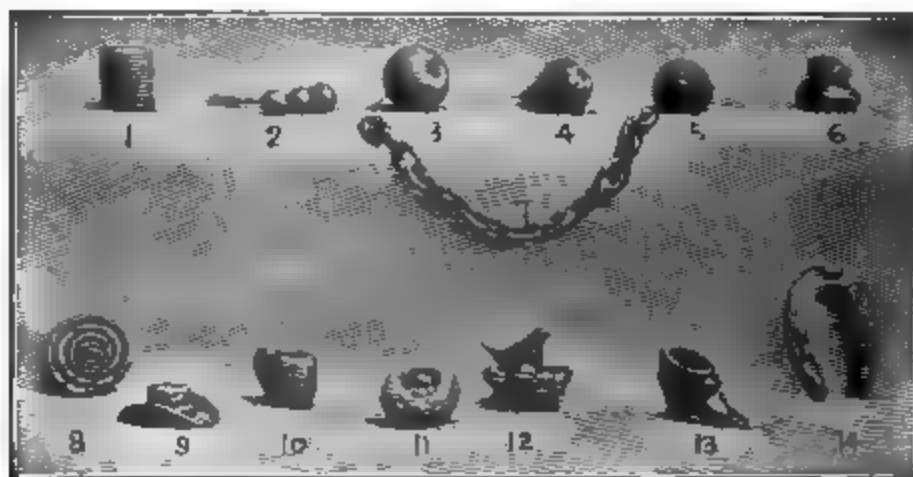


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No. 14.—A long cylinder is first made, and then flattened for the horse-shoe, the "nails" being put in afterwards.

CHAPTER XXIV.

MODELLING IN SAND.

1. Introductory.—Any one who has noticed with what interest and delight children dig in the sand on the sea-shore, and pile up their miniature castles and forts, will understand how eagerly Sand is welcomed as a School Occupation. A good-sized box full of sand, and a piece of oilcloth about a yard square, are all we require. If it is not convenient to obtain sand from the sea-shore, Calais sand can be purchased from the chemist, or the ordinary sand can be obtained * in bags.

2. How the lesson is given.—The sand should be damped before it is used. There are two ways in which sand lessons may be given: (1) the Teacher may mould the sand, the children looking on, or (2) each child may have a small quantity given to it and mould for itself. Examples will be given of both methods.

(1) Sand Models by Teacher only.—The oilcloth is spread on the floor or on a large, low table, so that all may see; then the sand is turned out of the box, having first been damped. Teacher asks: “Why do we mix a little water with the sand?” “So that we can make the shape we want.” “What is the sand made up of?” “It is made up of tiny grains.” “What else do you know that is formed of grains?” “Sugar, rice, etc.” “What can we do with these things—something that can be done with water?”

* See Appendix 14.

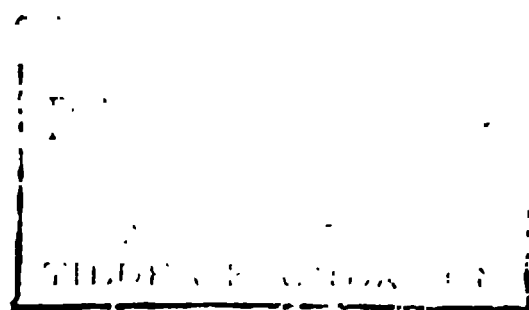
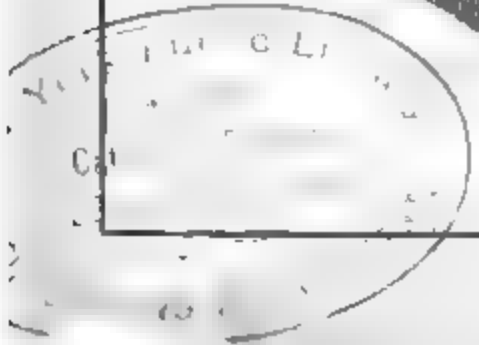
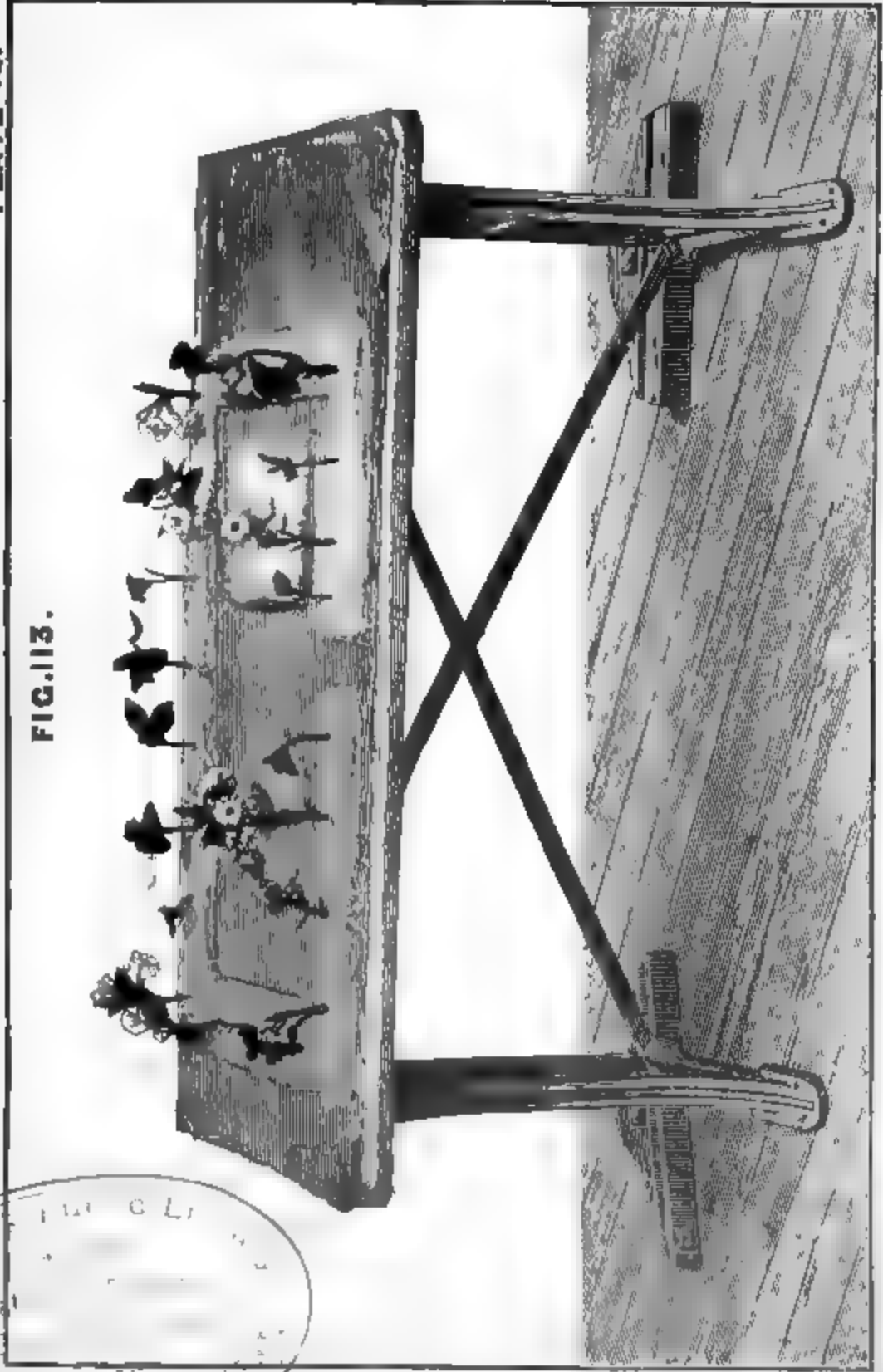


FIG. 113.



"We can pay them," Mr. Pitts suggested. They all in little groups discussed the matter. "I don't know," said Mrs. B. "Look where it is," she said. "I don't think it is worth it."

What you do is to pile up the evidence of the case, and pile it up, and pile it up, and pile it up, and pile it up.

[illegible][illegible]

(c) **A Garden** (Fig. 113) is done in the same way. At the same time a garden makes an excellent record. The garden is composed of different shapes & is in pots & in ground. When real flowers are stuck in these the garden is an excellent natural as well as a pretty picture. The flowers should be such as are found in a garden; the children can learn to distinguish between a wild flower and a garden flower.

(1) **A Pond.** A ridge of sand, or other shore, runs into the back of the pond. A soup-plate full of water is then put in the centre with a few ducks, geese, swans, etc., and can be purchased at no penny price, swimming in the pond. This is the children's favourite sand-house, and it is the

“ We can pour them.” “ Why ? ” “ Because they are in little grains.” “ What colour is the sand ? How does it look when the sun shines on it ? ” “ It looks shiny.”

What can be done to the sand ? ” “ We can dig in it, can pile it up, make a hole in it, or make pies, houses, etc.”

(a) **A Farmyard.**—“ Suppose we make a farmyard, what shall we want first ? ” “ A wall all round.” “ We must leave a place for the gate. In the centre we will make a trough, so that all the animals may drink. What animals do we see in the farmyard ? ” “ We see cows, hens, pigs, horses, ducks, etc.” In one corner we will make a hen-house, and in another a barn. These are made by the teacher as the conversation goes on. To make the farmyard complete, models of the animals mentioned should be brought in.

(b) **A Field.**—A Field is made by enclosing a larger space. When the wall is made the Teacher asks : “ What might we have round the field instead of a wall ? ” “ We might have a hedge or a fence.” “ What flowers might be growing in the field ? ” “ Buttercups, daisies, etc.” “ What have you seen in the field eating grass ? ” “ Sheep, cows, horses.” If these can be put in the field it becomes much more real to the children.

(c) **A Garden** (Fig. 113, Coloured Plate 16).—In Summer-time a Garden makes an excellent model. The beds may be made of different shapes, with paths all round. When real flowers are stuck in these beds, the garden is complete, and makes quite a pretty picture. The flowers should be such as are found in a garden ; the children thus learn to distinguish between “ field,” or wild flowers, and “ garden ” flowers.

(d) **A Pond.**—A ridge of sand, circular shape, represents the bank of the pond. A soup plate full of water may be put in the centre with a few ducks, swans, fishes, etc. (which can be purchased at one penny each), swimming in the water. This is the children’s favourite sand lesson, and it affords

scope for much interesting conversation, *e.g.*, "What might we have in the pond besides ducks, swans, etc.? Why can ducks swim?" "Because they have webbed feet." "Why cannot hens swim?" "They have no skin between their toes." Let the children see a duck's foot, also a hen's.

(e) **A Boat.**—"To-day we are going to make something that goes on the water. What do you think it is?" "It is a boat." If there is a toy boat in school, let the children see it; ask what they notice about the ends of the boat—one is sharp, the other is square or rounded. "Why is one end sharp?" "It has to cut through the water." "That is called the bow. Which part of the boat goes first? Why? The other end is called the stern." In making the boat with sand, the two ends should be clearly defined. In the case of young children, the conversation should be very simple, but older ones may be asked: "What other kinds of boats are there? What makes them go? Where do they go?" etc.

(f) Other objects may be made, such as steps (by forming the sand first into a solid block and cutting it with a lath), a river, or stream; a road with causeway, and tram lines formed by two rows of laths. An easy chair, a hut, a couch or sofa, a trough, a tub, a well, a bath, a pail (with a length of bent wire for a handle), may be made and many other things. Whatever the model is, the making of it should always be accompanied by a pleasant conversation led by the Teacher.

(2) **Sand Models by Children.**—Each child should have a square of oilcloth, or, better still, each desk should be covered with oilcloth. The cost is not great, and the oilcloth lasts a number of years. Then the Teacher, having first made the sand damp, gives a little scoopful to each child. Many of the objects made before by the Teacher may now be repeated by the children themselves. A bird's nest, a bed, and many other things can also be made. Loaves and cakes are favourite objects, and pies, which may be

shaped either with the hand or with a mug. If the children use the little patty tins for Bead Work, the tins may be used to shape the pies, and the children will enjoy a little game in which they sell pies.

Directions for playing the game :—

Take a large slate and cover it with oilcloth. Get a number of wooden lids from the Kindergarten Gifts. Let the children turn their pies on to the lids. Take as many of these as will fill the slate, and give the latter to the “Pieman,” a little boy who walks about the room, and calls :—

Man.—Hot pies, fresh pies, come and buy.

Chil.—There’s the pieman, hear his cry !

Pieman stops in front of one of the children, and says :—

Man.—This pork pie for sixpence take,
And a bargain you will make.

Child takes it and gives money, or pretends to do so. The “Pieman” then calls again, “Hot pies, etc.,” until all are sold.

3. Drawing Letters in Sand.—Spread the sand evenly over the oilcloth and then draw the letter with a stick.

If the children have been taught letters by means of the letter stories, the Teacher would refer to these in tracing the letters, *e.g.*, “You remember the name of the little boy who was glad to go to school?” The children at once reply, “Ibby,” or “Isaac”. The letter “i” is then drawn, and the Teacher asks again, “What was the name of his sister?” and when this has been given makes “l” and so on until the Letter Story is finished. The children may also make the letters themselves.

4. Drawing Forms in Sand.—The circle, oval, square, oblong, and many other forms may be traced in sand, and this makes a pleasant change from the shapes in wood, which are found in the form and colour box. Other figures may be drawn, such as a chair, a bed, a sofa, etc.

CHAPTER XXV.

BASKET-MAKING.

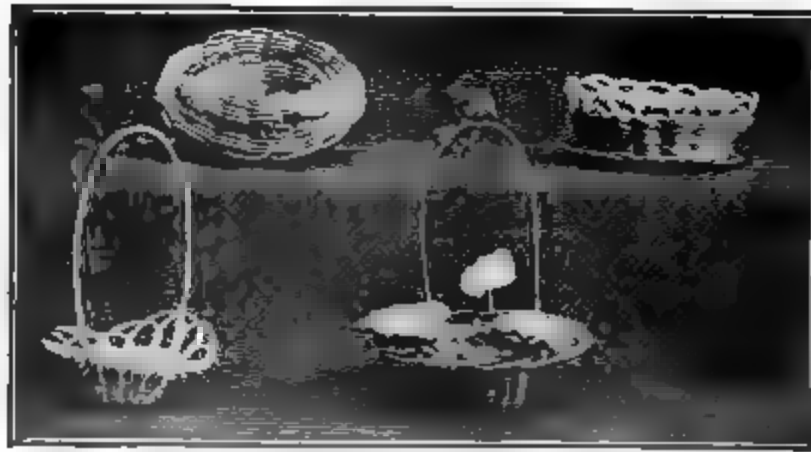


FIG. 114.

1. Introductory.—Cane-weaving is essentially an Occupation for training the hand and eye. It teaches the fingers to be deft and nimble, and gratifies the child's love of invention, for the basket may be moulded to any shape that is desired.

Another great advantage of this Occupation is that the child may learn to produce by its own effort, from raw material, an object at once beautiful and useful, and those who have taught basket-making to children know how delighted they are to carry home to mother the "work" or "egg" basket—made by their own little hands.

There is hardly any occupation more attractive to the little ones than basket-making, and it may, with advantage, be continued in the upper schools by older children. The baskets can always be sold for as much as the cane costs.

2. Material used.—Cane is the only material needed, and an interesting conversation about it should precede the lesson. Show the children a length of cane, and ask, “Where do you think this came from?” They will probably answer, “It grew”. The Teacher would then continue, “Cane grows in a warm country over the sea called South America. What other things do we get from over the sea?” “Coffee, tea, rice, etc.” “The cane grows in lengths, perhaps as long as the schoolroom (sixty feet), and it is much thicker than the pieces you see here. The thick cane is stripped of its bark and then cut into long square pieces, which are afterwards passed through a machine to be made round. How is the cane different from the little sticks (Gift X.)?” “It will bend.” “That is why we use it to make the basket, for you know that we cannot weave without bending the material backwards and forwards.” (Show the children a basket.) “You will notice that the cane is not all of the same thickness. The foundation on which we work is made of thicker cane, and the fine is used to weave with.” The cane should be soaked in cold water for two hours before being used.

Baskets for flowers,
And work we have here;
Which shall we make for
Our mother so dear?

Long lengths of fine cane
For weaving we take,
In and out winding,
A nice shape to make.

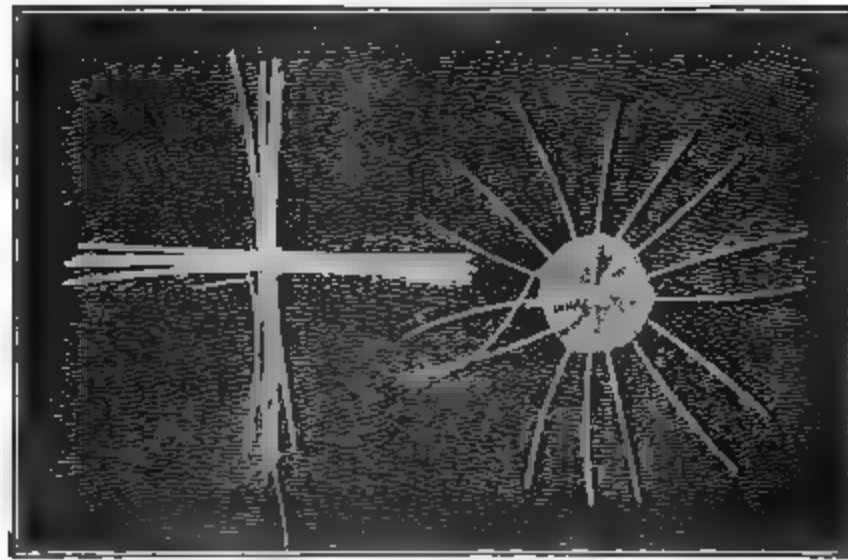


FIG. 115.

FIG. 116.

3. How to proceed.—Take eight lengths of stout cane,* about eight inches long, lay four in one direction, and four in the other. Hold them firmly at the point where they cross. Then take a length of fine weaving cane, and bind them together in the manner shown by Fig. 115. Commence to weave, going over the first, under the second, and so on, until we reach the point from which we started. In the second row two of the spokes are worked together, so as to make the odd number, and this is continued for several rounds, then one of the two spokes is cut off, see Fig. 116, which shows where the spoke has been severed. We have now fifteen spokes to work with.

If the children have mastered the "1 and 1" pattern of Mat-weaving, Fig. 90, there will be no difficulty in teaching them to weave baskets, but supposing that this is their first experience in weaving, they will invariably get the cane before and behind the *same* spokes, row after row, instead of alternating these movements. As in Mat-weaving, we

* See Appendix 15.

will use the words “before” and “behind,” believing that they convey a clearer meaning to the child’s mind than “over” and “under”. What we want to make the child understand is this—that if the weaving cane was carried *behind* a spoke in one row, it must be carried *before* that spoke in the next row. The following method answers admirably in giving a clear idea as to how this should be done.

Let thirteen children form a ring, kneeling, and facing outwards ; the same principle is illustrated similarly in Mat-weaving, Fig. 92, where the children stand in a row.

Take a ball of string, or tape, and let one of the kneeling children hold the end firmly in his left hand ; the Teacher or one of the children is to be the “weaver,” unwinding the ball as she goes ; the tape is carried *behind* the first child (*i.e.*, behind the child who kneels to the left of the one holding the string), *before* the second, behind the third, and so on, until the starting-point is reached, when the Teacher will say, “Now notice where the tape goes”. The children will see that every child in the ring, who had the tape passed *before* him in the first row, has it passed *behind* him in the second. If the weaving is continued for another row, it will be seen that the third row is like the first. Suppose the “weaver” should pass the string behind two spokes instead of one, the basket would be wrong at once. It has been found in this demonstration, as in the one which illustrates Mat-weaving, that if the children once grasp the idea conveyed by this method, they have no difficulty in weaving correctly.

In the actual weaving, the cane is to be carried before and behind the spokes, just as the tape was carried before and behind the children.

When children are learning to weave, it is well to give them a mat with a few rows woven to commence with ; they may learn to begin for themselves later.

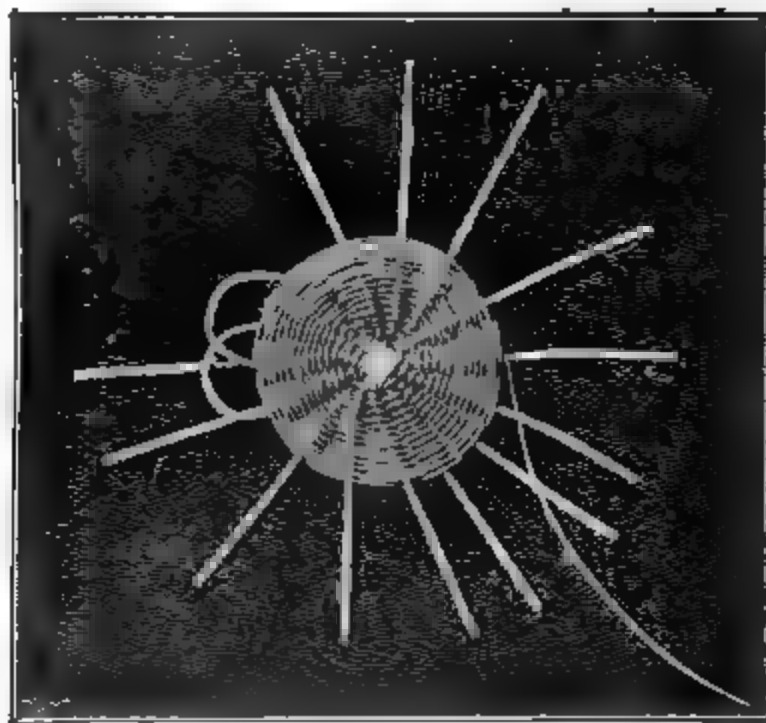


FIG. 117.

This figure shows how the end of the fine weaving cane is pushed down the side of the spoke to finish it off, and how the new length of cane is pushed down the opposite side of the same spoke.

The same illustration shows how the spoke is bent over, and pushed alongside the next spoke but one, to finish the mat.

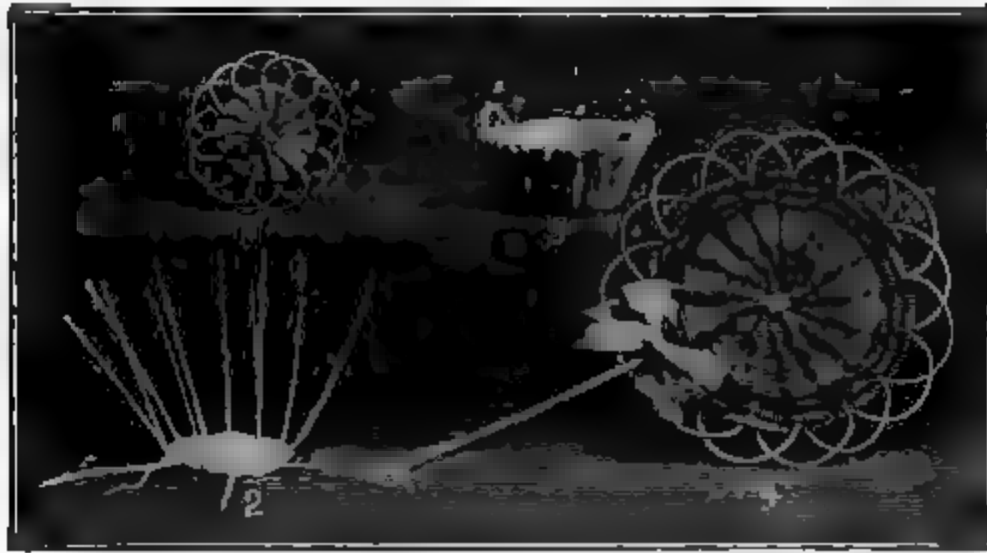


FIG. 118.

No. 1.—Mat. This should be the first object attempted by the child.

No. 2.—In No. 2 we see how the spokes are turned up to make the sides of the basket. First we turn up every spoke which the cane passes *behind*. We have now turned up alternate spokes all the way round. In the next row we pass behind the remaining spokes, *i.e.*, the ones that are still lying down, and each of these is bent upwards as we come to it.

No. 3.—The Clothes-basket has the spokes pushed quite down at the finish, so that the edge may be very firm.

No. 4. The Fan is simply a mat with a strong piece of cane for handle. A useful little book on cane-weaving has recently been published.*

* See Appendix 16.

ORDINARY SCHOOL SUBJECTS.

CHAPTER XXVI.

MORAL TEACHING.

Bible lessons.—Apart from the higher significance of Bible teaching no person can be said to be well educated without a knowledge of Bible history, and in the hands of a wise teacher imbued with its spirit, it may be made potent in the formation of right principles. Fröbel intends all his teaching to lead up to goodness—God. “Teach the children,” he says, “to love the beautiful, and it will help them to love the good,” for goodness is always beautiful, and evil is *unbeautiful*. Beauty is completeness, but wrong-doing misses the mark, and is, therefore, *incomplete*. In the Bible we get the one *complete*, and therefore beautiful character, and, studying it, we see the highest and best. The heart of a little child is like plastic clay, and to mould it after a pattern of beauty is the highest art. To lead the child to look up to God as a loving Father who cares for all, and especially for the little ones, just as a shepherd cares most for his lambs, is the right attitude of mind to encourage in a child. To speak of Him as some terrible *Power*, chiefly employed in meting out punishment to evil-doers, is at once untrue and unjust. How often we hear mothers say to their children, “If you are not good, God will not love you”. What a cruel libel! If we grown-up people were loved solely for our goodness, we should get far less love than do

the children. But the love of God is Infinite, and we are loved in spite of our wrong-doing. Teach the children by all means that wrong-doing *displeases* God, and that it is ungrateful to displease One who is so good to us.

In every school the first morning exercise should be an act of worship, and this may always be used to raise the children's thoughts to *goodness* and God. The Teacher might begin in some such way as this, *e.g.* (if it is a sunny morning): "How bright and warm the sunshine is! How glad it makes us feel! Who made the glorious sun? What else has God made that gives us joy?" "The birds to sing, the trees to shelter us and look beautiful, the bright pretty flowers, the kind mother to wash and dress us, and the father to work for us." After all these have been elicited from the children, Teacher says, "I am sure you would like to sing a hymn of thanks to God, would you not?" or the conversation may be used to introduce some such prayer as the following: "We thank Thee, O God our Father, for all Thy love. We thank Thee for the sunshine and the flowers, for our father and our mother. We thank Thee for our clothes and food, but we thank Thee most because Thou dost love us, and didst send Thy Son to be our Saviour. Help us to live like Him, for Christ's sake. Amen." Then follows the Bible or moral lesson—events in the life of Christ, simply told—how He blessed the children, raised the daughter of Jairus, healed the lunatic child, or gave sight to the blind; all these are intensely interesting to children, and need no further application than this: "*We cannot cure blind people, but we can do other kind things, and if we only give a cup of cold water to some one who is thirsty, that pleases God. We do not find Christ giving long applications; He tells the story, as in the 'Good Samaritan,' and then says, 'Go thou and do likewise'.*" There are many Bible stories that would not be understood by, and are, therefore, not suitable for, children of tender years. In relating incidents of history,

the aim should be to emphasise the struggle of right and its ultimate victory. The horrors of war and bloodshed should never be dwelt upon. In the story of David and Goliath, emphasise the fact that Goliath was a great tyrant, that he defied the armies of the living God, and that David by conquering him released the Israelites from serving the Philistines. It is not at all necessary to tell the children that David cut off the giant's head, the sling and stone are quite sufficient. As is remarked in the chapter on 'Stories, the children learn only too soon to like tales of cruelty. Perhaps it may be objected that children must know sometime, why not now? To which we reply, Let the child's unconscious innocence remain as long as it may. It is to him what the bloom is to the peach, and a rude hand may soon destroy it. Let us take care not to destroy it before its time.

It is essential that lessons should be given on such subjects as truthfulness, honesty, generosity, etc., and these should be fully illustrated by anecdotes, such as might occur in the everyday life of the child. Manners also should receive special attention. It is not too much to give one lesson a week to this subject. Each particular point may be made interesting by the relation of facts which have come under the teacher's own notice, *e.g.*, "I was at a railway station one day, for I wanted to go by train. Just as I was going to buy my ticket, a big rough boy pushed in front of me, and I had to step back. He was in such a hurry to get his ticket that he did not mind how any one else managed. What kind of a boy was that?" "He was a rude boy." "Why?" "Because he pushed in front of you." We must always remember, then, that it is rude to push in front of people.

Many other similar illustrations will suggest themselves.

CHAPTER XXVII.

READING.

1. Introductory.—Fröbel did not introduce reading until the children had passed through the Kindergarten, and had reached the age of seven years. As, however, Reading is part of the curriculum of our English schools, long before the children reach the age of seven, and as also it can be taught by means of stories, and made as interesting as any other “play,” it is given here, and the writer has found that children taught on this system take as much pleasure in sounding and finding out words as they do in making designs in drawing. Where reading is so taught as to have this effect on the children it must be a means of self-development, and Fröbel himself would hardly be willing to deprive the child of an occupation that proved so fascinating.

2. How should Reading be taught?—Most teachers would say, “Let the alphabet be taught first,” yet few proceed to the learning of words by the old method of spelling.

Unfortunately the learning of the alphabet, as it stands, does not convey to the child the true powers of the letters as we find them in the very simplest words. Take *b, a, g*, bag, *e.g.*, here *b* does not sound *bee*, nor *a* *ay*, nor *g* *gee*, and yet the child has been taught these for the three sounds *b, a, g*.

Every intelligent teacher admits that word-building is the most sensible system of teaching both reading and spelling, and for this we must have the *phonic* sounds of the letters; then why burden the child's tiny mind to learn a senseless

alphabet, out of which it can build nothing? Let it learn each letter as a *sound* for which that letter is most commonly used, then it can build the sounds into little words from the very first. If we follow Fröbel's principles, and obey his rule which teaches that nothing must be isolated or disconnected in the ideas presented to the child's mind, but that every *new* idea must be linked with something that the child already knows, then the same rule must be applied here, and we must find a means of linking the signs of the alphabet with some idea already in the child's mind. Remembering the great powers of imagination possessed by children who can readily transform a father's stick into a horse, we have associated each letter with a character or object, and woven these into little stories. This method has been tried for some years, and the children are fascinated and delighted with it, and learn to read with as much pleasure as they play a game.

3. Stories for teaching Phonic Sounds.

Story I., teaches sounds a, h, d, e, j.

(The Teacher should have the five letters on the table beside her.) The "Giant" * letters are best, with long strings attached which can be put round the child's neck.

"There was once a little girl called Alice, who liked very much to help do things about the house. One day Alice went to her mother, who was washing the clothes, and said, 'May I help you, mother?' 'Yes,' said her mother, 'you may hang out these things for me.' So Alice tied on the peg-bag, and took the basket of clothes into the yard. (Show letter a.) This is Alice you see with the peg-bag tied in front of her. I will give this letter to a little girl, and she shall hang it round her neck; perhaps there is a little girl called Alice! When Alice had finished hanging out all the clothes she felt a little tired, and as there was a nice hut in the garden, she went in and sat down to rest.

* See Appendix 17.

(Here show h.) This is the hut you see, and it has a little flag at the top. Tommy shall have the 'hut'. I will put the string round his neck. As Alice sat in the 'hut' she could see her little dog, Dombey, on the grass. He was sitting in the sun with his head up and his front paws out on the ground, as you see them here; this is Dombey, see! (Show d and give it to a child.) Soon Dombey sprang up and ran off to the gate barking all the time, oh, so loudly, what could be the matter? Alice ran after Dombey, and there! coming up the street, was a circus show, and what do you think she saw walking first? A great big elephant! He had a long trunk that curved upwards like this (show e), so we will think of the elephant when we see this letter.

"Now Alice had a brother called John, who was out in the field kicking his football, so she ran and called him to come and see the wonderful elephant (show j). This is John you see, he has kicked the football high above his head. Then Alice and John ran to ask mother if they might go to the circus to see the elephant there, and mother said she would ask father to take them, so they were very glad and happy."

How to apply the story.—When the story is ended, the children who bear the letters come out and stand in front of the class, and the other children are asked to point out (individually), "Alice," the "hut," etc., etc. When the story has been told a few times, and the children have become quite familiar with the "dog," "John," etc., the Teacher will say: "Now I want you to call this picture not Alice but a (sounded exactly like A in Alice), that is the first sound in Alice's name. Then this is the first sound in *John's* name, j;" and so on with d, e and h. "The first sound in 'hut' is just a breathing sound, as if you had a hot potato on your plate, and gave it a little 'blow,' scarcely making a noise at all."

The children soon learn to give the sound only, and they love to help the Teacher tell the story.



FIG. 119.

A frame similar to this (see Fig. 119) is very useful for holding the letters ; the children soon grow tired of standing still, and should therefore be relieved after a very few minutes.

Story II., to teach i, l, m, s, n. “ I will tell you about a little boy with a very funny name—he was called Ibbie. Now Ibbie had never been to school, but one day his mother said he might go, and Ibbie was so glad that he threw his cap up in the air, for he wanted very much to go (show i). This is Ibbie and there is his cap as he threw it up.

“ Now, as I told you, Ibbie was only a little boy, and the school was a good way from his home, so he could not go alone. But he had a nice big sister called Lucy, here she is!

(showing l), and she would take good care of little Ibbie, so off they went! When they had gone a little way, they came to a bridge that had two arches like this (show m), and Lucy told Ibbie that it was called the Mill Bridge. A river went under one archway and a road under the other. Ibbie and Lucy went under the road-arch and then they came to a field in which were some pretty flowers. Lucy wanted some and was stooping to gather them when she saw a funny long twisted thing in the grass; it was a snake, and when it saw Lucy it said sss. Just then a man came up and said: 'Oh that is my snake; the door of its cage was left open last night, so I lost it'. Then he lifted the snake up and put it on his shoulder, saying: 'It is tame, it will not hurt you,' and he walked away (show s). This is the snake, you see how twisted it is. Ibbie and Lucy then set off to run, and soon they came to another bridge, but this had only *one* arch (show n), and Lucy said this was called the Narrow Bridge. So they went under the Narrow Bridge and were soon at the school."

Each letter should be placed on the frame, as it is shown, or hung round the neck of a child. See Parag. N.B., p. 196.

Story III., to teach r, o, t, z. "I once knew a little boy called Robert, such a nice little boy he was with a curl on his forehead like this (show r). We will let this little picture stand for Robert, because it has a curl like he had. One day Robert's mother gave him a penny to buy an orange. This is the orange (show o), and he bought it at a funny little shop, that was kept by a funny little man called Tom. Robert liked to go to the little shop, because Tom was always kind to him. We will have this little picture for Tom (show t). As Robert went home with his orange, he met a poor old woman whose name was Zilla. This stands for Zilla (show z), and she looked so sad that Robert wanted to help her, and so he gave her the orange he had just bought, and I think he felt happier than if he had eaten it himself." See N.B., p. 196.

Story IV., to teach f, v, x. “ There was once a little girl whose name was Fanny. I think you will be able to remember Fanny, for she always has a sash tied round her waist. Here she is (show f). One day Fanny’s mother told her to dust the room, so she took a duster and carefully dusted all the things, and she was just going out of the room when her duster caught a pretty vase. It was this shape (show v), and it fell on the floor and was broken. ‘ What must I do?’ thought Fanny. ‘ I will go straight to mother and tell her how sorry I am.’ Her mother was sorry too, but she soon kissed Fanny’s tears away, and told her to be more careful another time. If you say the word ‘ kiss’ very quickly it makes this sound (show x), so you must think of the kiss that Fanny’s mother gave to her when you want to remember x, and the sound has to be made, not with your lips, but in your throat. It is a funny little sound.”

Letters to be placed on frame, or hung as before. Parag. N.B., p. 196.

Story V., to teach u, y, k, p. “ There was once a little boy whose name was Yesso. Perhaps this picture will help you to remember his name (show y), though it is not at all like a little boy, it is like the vase that Fanny broke, only here the vase has a stem to stand on. Now Yesso had a little sister called Undine, this is the picture (show u) of Undine’s skipping-rope, for she was always skipping when she went out to play. One day she went skipping along the path in the wood, until she came to a little house. ‘ I will ask for a drink of water,’ said Undine, so she knocked at the door. But no one came. By-and-by she heard a footstep behind her, and then she saw an old man coming towards the house, with a large bundle of sticks. He took a small key out of his pocket (show k), this is the key, and opened the door. When he had given Undine a drink of water he came and sat on a bench outside the house, for it was a very warm day, and began to smoke his pipe. We will say that

this is the pipe he smoked (show p). As Undine stood talking to the old man, she heard a shout in the wood. It was Yesso calling her. 'I must go now,' said she. 'Good-bye, and I thank you for the nice drink of water.' 'Good-bye,' said the old man, 'come and see me again some day, little maid. I like to see you skipping through the wood.' So that ends the tale of Yesso and Undine. Here are the key (k) and the pipe (p) and the skipping-rope (u), and this (y) stands for Yesso's funny name." See Parag. N.B., p. 196.

Story VI., to teach g, c, q, b, w. "There were once three little children, two sisters and a brother. The first little sister was called Gertie, you must think of Gertie when you see this funny picture (show g), it is not at all like Gertie, only she had a little feather which came out in front of her hat, just as this does in the picture. The next sister was Carrie, and she had very curly hair, it was curly all over; I think this might be one of Carrie's curls (show c). The little brother had a very funny name—it was Quilla, perhaps this might help you to remember Quilla (show q). One day, when it was Quilla's birthday, his mother bought him a present, can you guess what it was? (let children try to guess). It was a bat and ball. Here is the bat with the ball quite close to it (show b), it is a little like Alice's dog, Dombey, only you remember the dog had his paws out on the floor (d). (In this way the children learn to distinguish b from d, two letters which are often taken one for the other by little children.) Then Gertie and Carrie and Quilla took the bat and ball and went out into the field to play. Now in this field there was a well, it was not very deep, and its shape was like Fanny's vase (show w), here I have two wells joined together. They had not been playing long when Quilla hit the ball so hard and sent it such a long way that it fell into the well, and the poor children were afraid they would never see it again.

“But I am glad to say that the kind gardener brought a long ladder and went down into the well, and as it was nearly dry he was able to get the ball again, and all the children said ‘Thank you,’ and were very glad.”

N.B.—After each story proceed according to the instructions given after the first story, but do not separate the sound of the letter from its object until the latter is perfectly well known, and easily recognised. The stories should be told again and again before the sounds are given.

Alphabetic Method.—For those who prefer to teach the letters as they are sounded in the alphabet the stories are given in a different form, and the following rhymes may help the children, also, to remember the alphabetic names:—

A stands for Acorn,
B stands for Bee,
C stands for Cedar,
A very large tree.

D stands for Deer-hound,
E stands for Ear,
F is in Effie,
A good girl, and dear!

“Gee-gee” says baby,
When “horse” he does mean;
H sounds like Aitch-bone,
In beef it is seen.

I stands for Iceberg,
J stands for Jay,
K is for Katie,
Who plays all the day.

L is in Elbow,
Two elbows have we
M is in Empty,
As all will agree.

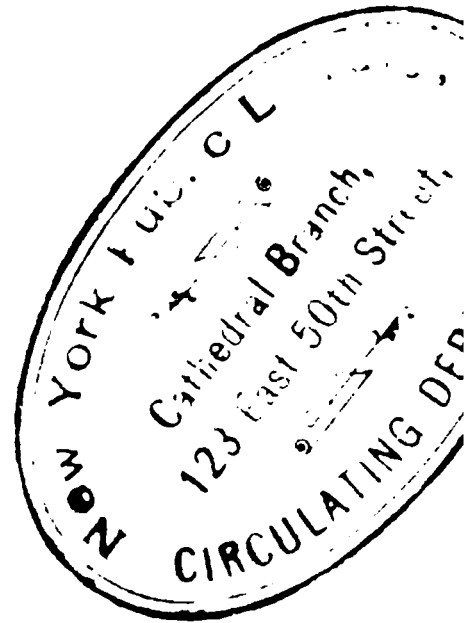
N is in Engine,
Which often you see
O stands for Oval,
P stands for Pea.

Q sounds like Cube,
 Tho' it is not found there ;
 R is in Arm,
 We each have a pair.

S is in Esther,
 A good queen was she ;
 T is in Teapot,
 From which we pour tea.

U begins Unicorn,
 V stands for Veal ;
 W is W
 And it begins Wheel.

X is in Exercise,
 Y sounds like Wine ;
 Z stands for Zeddie,
 A brother of mine.



4. Letter-stories for teaching the Alphabetic Sounds of the Letters.

Story I., teaches a, d, e, j. “ There was once a little girl called Ada, who was very fond of helping to do things in the house. One day her mother was washing, and Ada went and said, ‘ May I help you, mother ? ’ and her mother said, ‘ Yes ; you may hang some clothes out to dry ’. So Ada fetched the peg-bag, and tied it on, and then she took the basket of clothes and hung them on the line to dry. This is Ada with the peg-bag in front of her (a is shown, and if the ‘ Giant ’ letters are used, it can be put round a child’s neck or placed on a letter-frame, see Fig. 119). When Ada had finished helping mother, she went into the park to look for James, her brother. She knew he had gone there to play with his football. Here he is kicking the football ; it is higher than his head, you see (show j).

“ ‘ Oh, James,’ cried Ada, ‘ I see a deer under the tree, let us go nearer and look at it.’ ‘ We must go quietly,’ said James, ‘ so as not to frighten it. See how it sits with its head up and its feet out in front ’ (show a picture of the

deer if possible, then show d). ‘Ah,’ said Ada, ‘it has run away, I am so sorry, I wanted to see it close by.’ ‘Never mind,’ said James, ‘we will go home now, and I will read to you out of my new book, it tells all about the deer.’ So they went home, and James got his book. It had lots of pictures in it, and as James turned over the leaves Ada said, ‘Oh, James, do let me look at that bird, how large it is, and what bright eyes it has. What is its name?’ ‘It is an eagle,’ said James. ‘It lives on the top of a mountain or on high rocks’ (show e). This is not a picture of the eagle, but I want you to think of the eagle whenever you see this.”

a	d	j	e
Ada	Deer	James	Eagle

Teacher then says: “I want a child to come out and show us ‘James’ ” (child points to j). “Now who can find Ada? you know that it is Ada because of her peg-bag. Which is the deer and which is the eagle?” When the children name them easily they may say a instead of Ada, d (dee) instead of deer, j (jay) instead of James, and e (ea) instead of eagle. (See “How to apply the story,” p. 191.)

Story II., to teach i, l, m, s, n. “Isaac was a very little boy, and had never been to school, but one day his mother said he might go, and Isaac was so pleased that he tossed his cap up in the air, for he wanted very much to see what school was like (show i). This is little Isaac, with his cap in the air. Now the school was a long way from Isaac’s home, and his mother could not send him so far all alone. But he had a kind big sister called Ellen (show l), and she would take her little brother to school, and see that no harm came to him. So off they started early in the morning. When they had gone a little way they came to a bridge with two arches, the river ran under one arch and a road under the other. ‘This is Emsay Bridge,’ said Ellen, ‘can you

remember, Isaac?' 'Oh, yes,' said he, 'Emsay Bridge is very easy to remember' (show m). Here is the bridge, you see, with its two arches. After they had passed the bridge they came to a field, where pretty flowers grew, and Ellen said: 'Oh, I will get some for my Teacher,' and she was just stooping to gather them when she saw a funny, long twisted thing in the grass like this (show s). 'It is Esther's snake,' cried Ellen, 'she lives in the cottage over there, I will go and tell her.' So Ellen went to tell her, and the old woman, Esther, came out and picked up the snake. 'It will not hurt you,' she said, 'it is quite tame; how did it get out of its cage, I wonder?' Then she went home, and Isaac said: 'How funny to have a snake for a pet!' 'Yes,' said Ellen, 'but we must hurry now, or we shall be late for school.' By-and-by they came to another bridge which had only one arch, where the trains went under (show n). 'What is the name of this bridge, Ellen?' asked Isaac. 'I do not know,' said Ellen. 'Then I shall call it Engine Bridge,' said Isaac, 'because the engine brings the train under it.' After they had passed this bridge they were soon at school."

i	l	m	s	n
Isaac	Ellen	Emsay Bridge	Esther's snake	Engine Bridge

Let the children hear the story several times, and become perfectly familiar with i as Isaac, l as Ellen, etc., before separating the letter sound from the object. If the children once learn l as Ellen, they will have no difficulty in abbreviating it to *el*, and so on with all the objects.

Story III., to teach r, o, t, z. "There was once a little boy called Arthur, I think you will remember him, for he had a little curl on his forehead like this (show r), so you must always think of Arthur when you see this picture. He was a very little boy and wore frocks. One day his mother sent him out into the garden to play, and he had not been there long

when a strange dog came up, and caught little Arthur's frock in his teeth. I do not think it meant to hurt him, but Arthur was frightened and called out 'Oh!' so loudly that his mother came running to see what was the matter, and when the dog saw her, he soon let go of the frock (show o). This is the sound that Arthur made, and his mouth was just this shape as he called out 'Oh!' The dog still stayed in the garden, until a boy came whistling up the road, and then it flew off to the gate, and waited for him. 'Is that dog yours?' asked Arthur's mother. 'Yes, ma'am,' said the boy as he raised his cap, 'I hope he has not been in mischief, have you, Teazer?' (show t). This picture stands for Teazer, you must always think of the dog Teazer when you see it. 'What is your name?' said Arthur to the boy. 'They call me Zeddie at home,' said he (show z). 'Would you like to have a game with my dog?' 'Yes, I should,' said little Arthur, so Zeddie and Teazer came into the garden, and they rolled on the grass and had fun with Teazer, until they were all quite hot and tired, and then Zeddie and Teazer went home."

r	o	t	z
Arthur	Oh! (the sound he made)	Teazer	Zeddie

Let the children distinguish the objects as at the end of Story I.

Story IV., to teach f, v, x. "This story is about a little girl called Effie, and she was like another little girl that I told you about one day, she liked to help her mother. (Refer to Ada in Story I.) Now Effie had a little sister called Vera, but she was not big enough to work, she played all the time. Effie always wore a sash round her waist (show f), here she is with her sash! so you will always know which is Effie. One day she had been dusting the room for her mother, and she was just coming out when the bow of her sash caught a little cup that stood on a low table close by the door. It

was Vera's cup (show v). Down it fell and was broken to pieces. Effie picked up the broken bits and went straight to her mother to tell her how sorry she was. Then her mother said she must go and find Vera, and tell her about it. So Effie went. At first Vera was very sorry, but when she saw how sad Effie looked she said, 'Never mind, Effie. I am sorry my present is broken, but we will not trouble about it any more. Let us play school and you give me exercises for my arms, like your Teacher does at school.' So they began to play, and were soon quite happy (show x). When you see this you must think of the exercises that Effie showed Vera."

f	v	x
Effie	Vera	Exercise

Story V., to teach u, y, k, p. "There was once a little girl called Una, and she was very fond of skipping, this is Una's skipping-rope (show u). One day she went skipping along the path in the wood until she came to a cottage where Peter, the woodcutter, lived. Una liked to go to Peter's cottage, and she was very sorry when she found the door locked and no one about. She waited a little while and then she saw Peter and his wife coming through the wood, and Peter had his axe on his shoulder. The old woman soon took the door key from her pocket (show k) and unlocked the door. Her name was Katie, so you must call this little picture Katie's key. When they got inside the old woman was very tired, and began to cough, so Una gave her some medicine that her mother had sent. She soon found a wine-glass (show y), this is the wine-glass, and poured the medicine into it. Then Una reached Peter's pipe (show p), here it is! and gave it to him, and they were all as cosy as could be, and I am sure the little girl was happy, for she had helped to make two other people happy."

u	y	k	p
Una's skipping-rope	Wine-glass	Katie's key	Peter's pipe

Story VI., to teach g, c, b. “Celia was a very little girl, almost a baby, and she had the prettiest curly hair that you ever saw. She could not say her own name properly, but used to call herself Ceely, so we will call her Ceely too (show c). This is one of Ceely’s curls. Ceely was very fond of romping, and she loved to sit on the arm of the sofa, and pretend it was a horse, and that she was riding. She would say, ‘Gee-up, Dobbin’ (show g). When you see this picture you must remember what Ceely said to her horse; this little curl (on the g) will help you to remember, because you know Ceely had curls. There was a little girl who would sometimes come to play with Ceely in the garden; her name was Beatrice, but Ceely called her Bea. What game do you think they loved best to play? It was bat and ball. Bea had a stick that would do for a bat, and then she would bring her ball, and they would play quite merrily (show b). This is Bea’s bat and ball.”

After each story proceed according to the instructions given after Story I.

All the letters are included in these alphabet stories except h, q and w.

Sometimes the children themselves may personate the objects or characters, the letter representing such character or object being hung in front of the child. Thus a little boy could be Isaac (having letter i) and a bigger girl would represent Ellen. The Emsay Bridge could be made by three children standing in a row with hands joined and raised, and the Engine Bridge similarly by two children.

Another way of using the stories is to let the children who represent the characters and hold the letters sit down in their places, and when the Teacher tells the story again, each child is to come out when the object it carries is mentioned by the Teacher, and stand in front of the class.

5. Elementary Word-building.—If the phonic sounds

have been taught (as given in the first set of stories) the children can begin to build little words as soon as ever the sound is substituted for the object. If the alphabetic method is adopted, it will be necessary to take each letter over again, and let the children learn that a (ay) says a (short sound as in bat); b (bee) says b (short sound as in bat). Suppose "at" to be chosen as the first combination, Teacher says: "Oh, here is Alice, we know her by the peg-bag, and who is this? Why, it is the funny little man that kept the shop. Tom is his name. Wouldn't you like to say 'Good-morning' to him?"

Children say, "Good - morning, Tom; good - morning, Alice". (If this seems absurd to any, let us remember that children of these tender years live in a world of make-believe, where fancy is everything and philosophy nothing.) "Now, I will take the first sound from Alice—a, and the first sound from Tom—t, and say them one after the other quickly, and if you listen carefully you will hear a little word, a, t,"—"at" say the children. "Now I will take the first sound from curl and put that in front of 'at'—listen, c, a, t," and the children delightedly cry "cat".

In this way simple word-building is taught with ease, and the sounds may be printed on the blackboard, or traced in sand with a stick, after the children have become familiar with the "Giant" letters.

c-at As the children grow more accustomed to the combinations of sounds, a list of words may be given, the Teacher first printing "at" and the children supplying an initial sound to make a word. The words might be woven into a little story, thus:—

b-at "A cat saw a rat as she sat on the mat. The rat **m-at** went into Tom's hat, and Tom got his bat to send it out, but the rat had run off, and the fat cat went back to her place on the mat." Other lists of words are given in the same way, such as cap, lap, map, nap, sap, etc., bad, dad, fad, gad, had,

lad, mad, sad, etc. ; then a new vowel is taken and we get bed, led, etc., pit, bit, etc., pot, cot, etc., and when all these lists have been gone through, the children will be ready to change the vowel thus : pat, pet, pit, pot, put. Before taking more difficult words it is advisable to teach the capital letters. These should be placed each beside the small letter of same name, thus, Aa, Dd, and those which are alike or similar should be taught first, Ii, Jj, Kk, Oo, Pp, Ss, Uu, Vv, Ww, Xx, Yy, Zz. There are now only twelve left to be learned, and these are very soon mastered. The same easy words, bat, mat, etc., should now be given again, but with a capital letter placed first, thus, Bat, etc., and coloured chalks should be used, then the first letter can be printed in one colour, and the other two in another colour, thus :—

C-ab	M-et	B-it	P-ot	B-ut
M-ab	L-et	F-it	C-ot	C-ut
D-ab	S-et	K-it	L-ot	N-ut

When three-letter words are thoroughly well known, the next step is to take easy double sounds such as ee, oo, ow, oy, and in these three colours of chalks may be used.

f-oo-d	f-oo-t	d-ee-d	m-ee-t
g-oo-d	s-oo-t	n-ee-d	f-ee-t

Longmans' "Ship" Reading Sheets (coloured) which are reprints from the First Primer may now be used. It will be necessary to learn the irregular words such as "the," "was," "he," etc., from sight, then the little lessons may be taken from the Reading Sheet, and the children will thus be prepared for the First Primer. The Reading Sheet shows how coloured chalks may be used for word-building.

6. Punctuation Marks.—When the Reading Sheet is introduced, it will be necessary to explain to the children the meaning and value of the punctuation marks. We do not stop very long when we see this little thing with a tail (,),

only as long as it takes to count one, but for this round dot (.) we have to stop longer, until we can count four quickly, then we may raise our voice and go on again. Why must we raise our voice? Because when we see this mark (.), a full stop, it means that the sentence is ended. For these funny marks (? !) we must wait as long as we do for the full stop, but for this one (;) we only count two, and we can remember that because there are two marks. After the Reading Sheet, the First Primer should be used.

There is nothing that a child loves better than to have a book in its own little hand, and the pictures in these Primers are so beautifully drawn and coloured that they alone are sufficient to make the book a delight to the little ones.

7. How to give a Reading Lesson.—1st. The first thing, of course, is to talk about the picture, and get the children to tell everything they can see in it (always in complete sentences). When they are thoroughly interested,

2nd. Teacher might say, “I am sure you would like to know more about the picture. Listen while I read about it.” She then reads the lesson. “Now you know the *name* of the dog in the picture” (suppose it to be p. 17, Longmans’ First Primer, “Ship” series), “and you know where it has been,” etc.

3rd. “Now we will learn these words at the beginning, and then you will soon be able to read the lesson yourselves. There are only two words, ‘out,’ ‘too’. I will write them on the blackboard, and you shall build some other words from them.”

g-out

p-out

too-k

too-l

4th. The next step is to master the words of the lesson, but as these have been learned previously in Word-building, the children will soon recognise them again.

5th. The Teacher then gives pattern reading, the children reading after her. Great care should be taken here to

lad, mad, sad, etc. ; then a new vowel is taken and we get bed, led, etc., pit, bit, etc., pot, cot, etc., and when all these lists have been gone through, the children will be ready to change the vowel thus : pat, pet, pit, pot, put. Before taking more difficult words it is advisable to teach the capital letters. These should be placed each beside the small letter of same name, thus, Aa, Dd, and those which are alike or similar should be taught first, Ii, Jj, Kk, Oo, Pp, Ss, Uu, Vv, Ww, Xx, Yy, Zz. There are now only twelve left to be learned, and these are very soon mastered. The same easy words, bat, mat, etc., should now be given again, but with a capital letter placed first, thus, Bat, etc., and coloured chalks should be used, then the first letter can be printed in one colour, and the other two in another colour, thus :—

C-ab	M-et	B-it	P-ot	B-ut
M-ab	L-et	F-it	C-ot	C-ut
D-ab	S-et	K-it	L-ot	N-ut

When three-letter words are thoroughly well known, the next step is to take easy double sounds such as ee, oo, ow, oy, and in these three colours of chalks may be used.

f-oo-d	f-oo-t	d-ee-d	m-ee-t
g-oo-d	s-oo-t	n-ee-d	f-ee-t

Longmans' "Ship" Reading Sheets (coloured) which are reprints from the First Primer may now be used. It will be necessary to learn the irregular words such as "the," "was," "he," etc., from sight, then the little lessons may be taken from the Reading Sheet, and the children will thus be prepared for the First Primer. The Reading Sheet shows how coloured chalks may be used for word-building.

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3rd. “Now we will learn these words at the beginning, and then you will soon be able to read the lesson yourselves. There are only two words, ‘out,’ ‘too’. I will write them on the blackboard, and you shall build some other words from them.”

g-out

p-out

too-k

too-l

4th. The next step is to master the words of the lesson, but as these have been learned previously in Word-building, the children will soon recognise them again.

5th. The Teacher then gives pattern reading, the children reading after her. Great care should be taken here to

prevent any child mis-pronouncing a word. A class was one day reading about "A noble dog," and when it came to individual reading the first boy read the title, "An oval dog". If the word "noble" had been explained and talked about, such a mistake would hardly have occurred. Errors of this kind should be checked in the simultaneous reading.

6th. Now the children should read the lesson simultaneously without the Teacher's help. This gives her an opportunity for detecting mis-pronunciations, by watching the children's lips and listening carefully. A Teacher should always be in front of her class when they are reading simultaneously.

7th. Last comes individual reading. If a child makes mistakes, they should be corrected kindly and encouragingly. It is easy to make a child lose its self-respect by undue severity and fault-finding, and once that is done the child loses confidence, without which it is impossible to read aloud with ease. Children always feel nervous when they are corrected before a number of other children or grown-up people, hence the necessity for doing it lovingly.

8. Word-building (more advanced).—Quite one third of the time given to reading should be occupied with Word-building, even when the children have begun to read from books. After the elementary Word-building given in the earlier part of the chapter, more difficult combinations should gradually be given.

Blackboard Lessons.—1st. To go back to such easy combinations as oy and ow the children have to learn that ow has two sounds, as ow in cow, and ow in mow. It would be well to write all the words sounded like "cow" in one colour of chalk, and the words sounded like "mow" in another.

2nd. Several lessons should be spent in showing the children how e at the end of the word changes the sound of the other vowel, though e itself is not sounded at all in these words. A few examples are given, and many more can be

added. S-am, s-ame ; f-an, f-ane ; m-et, m-ete ; w-in, w-ine ; c-ot, c-ote ; t-un, t-une.

3rd. The double vowels, such as oa, ea, ai, oi, ie, need special attention. A multitude of words can be formed from these, as c-oa-t, r-oa-d, m-ea-t, v-ea-l, m-ai-d, p-ai-d, etc., etc.

4th. Then there are the double consonants, such as sh, ch, ck, bl, br, pl, fr, cr, and many others, which should be used with combinations already learnt, as sh-un, ch-in, br-an, pl-an, fr-om, etc.

5th. Then easy double-syllabled words may be given, as win-dow, gar-den, etc., and words that have a double consonant in the middle, as mor-row, fol-low, etc.

6th. For older children we have the doubling of the final consonant in many words, as drop, drop-ped, also the word-endings, such as le, ly, ing, ful, tion, and many others, and peculiar words, as knee, knead, knife, and words sounded alike, but spelt differently, air, ere, e'er. All these words should be taught on the blackboard in groups.

9. How to cultivate a taste for Reading.—Let the children buy copies of reading books used at school at cost price, and when possible, lend them books to read. Longmans' "Ship" Primers and First Reader are all arranged on the word-building system, and the coloured pictures are charming. It is possible to arrange a lending library even for little children, and this can be done at a very small cost by obtaining a variety of simple reading books and stories.

CHAPTER XXVIII.

WRITING.

CORRECT writing is the result of correct observation. It is, therefore, manifestly wrong to expect children to write before they have been taught how to observe, and for this reason a child should not attempt to write until it has been at school for some time. When we consider all that is needed to make writing beautiful, remembering that every letter has its own peculiar form, that we need a nice distinction of height and length, and width and slope to make even one letter correctly, is it any wonder that tiny, baby fingers are unable to write with ease?

1st Step.—(a) Before a slate or pencil is given to a child, we must do all we can to pave the way to “Writing” by the child’s favourite occupation, “play”. If the Kindergarten tables or desks are used (see Fig. 2, p. 13), sticks one inch in length may be given to each child to lay on the squares. The Teacher takes a longer stick (so that children can more easily see it) and says, “What can my stick do? Look!” (placing it vertically against blackboard). “It can stand up,” say the children. “What else can it do?” asks the Teacher. “It can lie down,” say the children. (Teacher makes it lie down.) “Now I want you to make your little sticks stand up all in a row, they must all stand on the same line, and there must be one square between each.

Pretend they are little soldiers. I will tell you a story while you are placing them.

“There was once a captain, and he was drilling his soldiers, there were six in a line (if children have six sticks each) and he said, ‘Stand to line,’ so all the soldiers put their feet (toes) to the line (just see if your little soldiers are all on the line). Then he said, ‘I see two soldiers too close together, they must all have the same space between’. (Just as your little soldiers have one square between each.) Then the captain said, ‘Stand up straight,’ and all the soldiers held their heads up, and stood as straight as could be. I wonder if your little soldiers are all standing straight! I will come and see.” (Teacher looks at children’s work and corrects any that is wrong.)

See my little soldiers,
 Standing in a line,
 All so straight and even,
 Do they not look fine?

 When their drill is ended,
 Down they all will lie,
 And while they are sleeping,
 I shall watch close by.

(b) In another lesson, the same sticks might be used to teach “lying-down” lines, with a story about the soldiers being tired and lying down to sleep.

(c) Then sticks of another length should be given, two inches long, these are taller soldiers, they must also stand up and lie down.

(d) Now the two kinds of soldiers stand side by side, and the child sees that there is difference in height; then the sticks are combined to make rough representations of letters.

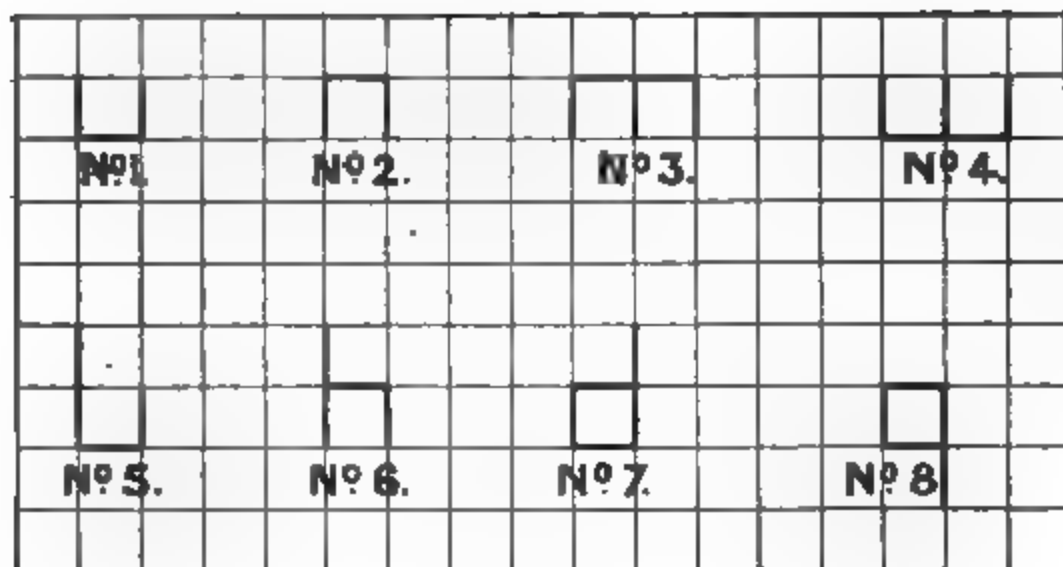


FIG. 120.

No. 1.—Here we have two little sticks standing, and one lying (prepares for *u*)

No. 2.—Now the lying-down stick is moved to the top (prepares for *n*).

No. 3. Place another stick lying down, and another standing up (prepares for *m*).

No. 4.—Move the two lying-down sticks to the bottom (prepares for *w*).

No. 5.—Now we have a tall soldier standing up, a little one lying down, and a little one standing up (prepares for *b*).

No. 6.—The lying-down stick is brought to the top of the square (prepares for *h*).

No. 7.—Three short sticks and a tall one are used for this (prepares for *d*).

No. 8.—The tall stick is moved down one square (prepares for *g*).

The Teacher will think of many other letters that can be represented in the same way as those given above.

(*e*) Next the half-inch sticks should be introduced; the children will see that they only reach half-way up the

square, and they will probably call them the *baby* soldiers. When they have used the half-inch sticks alone, let them be combined with the others, thus: L (*l*), □ (*a*), etc. The children will see a similarity between these rough representations and the letters they have learnt in reading.

2nd Step.—The Slate and Pencil should form the subject of conversations before they are used. When several writing lessons have been spent with the “soldiers,” the children may have chequered slates given to them, and they should compare the squares on their slates with those on the table. They will see that they are much smaller, and that the “sticks” would not fit on these small squares. “We must find new soldiers, how nice it would be to *draw* them,” says the Teacher, “but we must first learn how to use the pencil.”

Let the children show right hand, and then left hand, and they must know how to distinguish each finger, long finger, little finger, forefinger, etc., then Pencil Drill may be given. The following rhyme may help the children to learn the names of the different fingers:—

- (1) Show your thumbs, dear children, all,
- (2) Forefingers come when I call,
- (3) Little fingers bowing, greet,
Like two ladies when they meet,
- (4) Middle fingers stand up straight,
- (5) Ring-finger for you we wait.

Movements.—(1) Hold up the thumbs.

(2) Hold up forefingers, the thumb and other three fingers being kept closed.

(3) Hold little fingers up, and let them bow to each other, rest of hand being closed.

(4) Middle fingers stand up, rest closed.

(5) Show the third finger of each hand, rest being kept closed.



FIG. 121.



FIG. 121 a.

Pencil Drill.—*Ready.* When Teacher says “Ready,” the children hold the pencil by its point between thumb and forefinger of *left* hand. When she says:—

One, Thumb of right hand is held up. No. 1, Fig. 121.

Two, Forefinger of right hand is held up. No. 2.

Three, Long finger is raised (thumb and forefinger being still kept upright). No. 3.

Four, Grasp pencil between thumb and *long* finger of right hand. No. 4.

Five, Put forefinger of right hand on the pencil. No. 5.

The Teacher should have a much larger pencil, or a small *stick* pointed, so that the children can see it easily; and she

should use her *left* hand, as it is opposite to the children's right when she stands in front of them.

The following rhyme may be used in teaching pencil drill :—

Ready. With your left hand pencil seize,
 (1) Hold your right thumb high up, please,
 (2) Then forefinger comes out so,
 (3) And long finger follows too,
 (4) Thumb and long one pencil hold,
 (5) Forefinger comes next we're told,
 Then we're ready strokes to make,
 And I'm sure great pains we'll take.

The numbers refer to the illustrations.

When the pencil drill has been thoroughly learnt, the children are allowed to make "soldiers"—standing-up lines, one square long on their slates, imitating the Teacher, who makes them in chalk on the blackboard. A very few strokes should be made at one time. Gradually the strokes two squares long are introduced, and the children make all the forms (on the chequered side of their slates) that were made with the sticks.

3rd Step.—The child may now be introduced to lines ; the following style of ruling is very suitable for young children, and the blackboard should be ruled exactly like the slate.

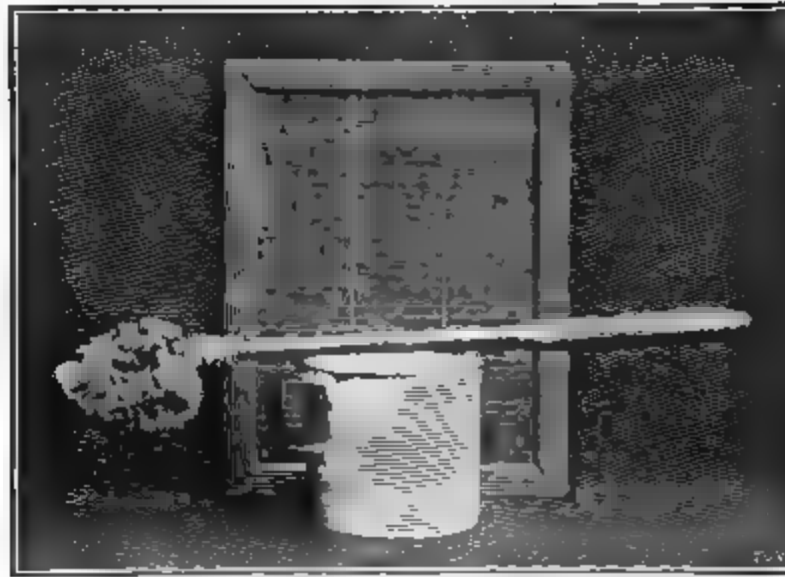


FIG. 122. Sketches of Baby's Slate, Sponge and Can.

Before beginning to write, the children should learn to distinguish the lines, middle line, top line, and bottom line. A child should come out and point to middle line, another to top line and so on. When these are known, Teacher says: "Now I want to make a soldier standing up on this line (pointing to bottom line), but I must begin at the top line. Where is my chalk?" (placing it on line). "It is on the top line" "Down it goes through the middle line, and when it reaches the bottom line it stops. I have made the 'soldier' just in the middle of the space (see Fig. 122). I will make two more, then a child shall come out, and try. (Teacher makes three strokes.) Now Johnnie may come." (Perhaps Johnnie's stroke may slant a little.) Teacher asks: "What is the matter with Johnnie's soldier?" Children: "It does not stand straight up". Another child takes the chalk and tries. (This time, perhaps, the stroke is not in the middle of the space.) Teacher again asks what is wrong, and elicits the answer from the children, then she might say: "Don't you remember how particular the captain was to have all his soldiers standing in their right places? and we must be

the same with our soldiers ". It makes all the difference in the world to the children whether the lines are called *soldiers* or simply strokes ; a soldier is invested with real living interest (especially if they have seen pictures of them), but a stroke means very little to these young children.

A large proportion of each writing lesson should be taken up with Blackboard teaching, because the children learn so much by seeing the faults enlarged, as they must be on the Blackboard. When the Teacher has finished the Blackboard practice, she says, " Now you shall try to make three little soldiers on your slates, just like mine, each standing in the middle of its own little space ; but we must first have Pencil Drill ". When this has been given, the children make the three strokes—no more than three, for if they are incorrect, as they are sure to be at this early stage, the writing of a stroke or letter several times over only intensifies the fault, and makes it more difficult to eradicate.

Every child should have a slate rag, and the Teacher should have a little can of water with a sponge (a 1d. sponge will do) tied to a little stick (Fig. 122). It takes a very little time for the Teacher to dab each slate with the wet sponge, and the child then rubs it clean and dry with its slate rag.

A great many lessons should be given to the elements before proceeding to the groups of letters as shown in Figs. 123 and 124, and when the letters are given, very few should be done by the children at one time, for the reason before stated—that repetition of an error intensifies the difficulty of correcting it.

The letters in one group should be fairly well done before proceeding to another group.

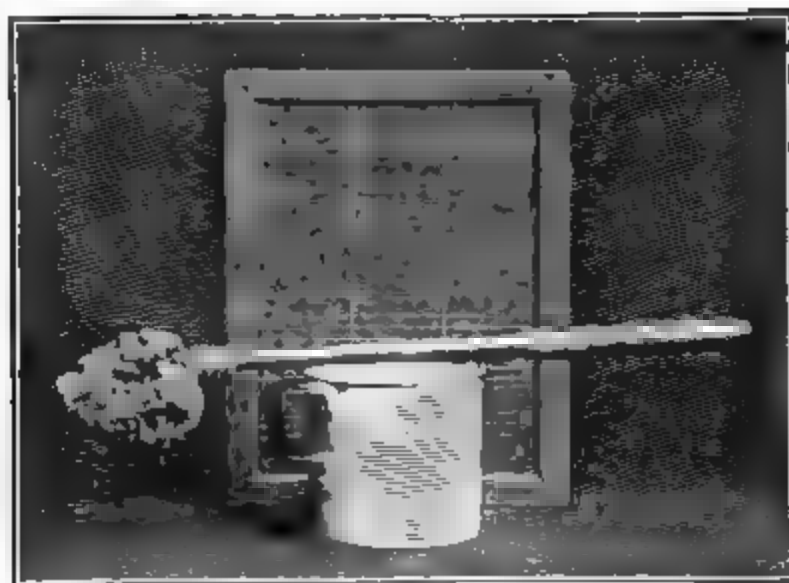


FIG. 122 Sketches of Baby's Slate, Sponge and Can.

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Small Letters

Elements

I T L U Z

Group I

m n r i u w v

Group II

c e o a x s y

Group III

l b h k d t

Group IV

j g y p f q

FIG. 123. Sketch of Slate Showing Letters in Groups.

Capital Letters

Group I

T P B R D

Group II

C I L G J F

Group III

A N M V W

Group IV

L H F K

Group V

O E X Z Y U

FIG. 124. Sketch of Slate Showing Letters in Groups.

Correction of faults.—Some letters are made too narrow, some too wide, some are angular where they should be rounded, and others are badly joined. It is best to show all these faults on the Board, the correct way of making the letter being shown side by side with the fault. In this way the whole class gets the benefit of the correction, and until the children learn to make each letter fairly well, most of the time should be given to Blackboard teaching. Other faults are: smears on the writing, strokes too thick, and slope irregular. The latter fault may be corrected thus: write on the Blackboard the irregularly sloped letters, *e.g.*, *mqn*, and then draw strokes through each line; the children will see that as these prolonged strokes are not parallel, neither are the strokes of the letters parallel. Children will sometimes join *o* on the left side *o*; *f* is often too wide, thus, *f* and *j* is taken above the line. In the capital letters it is difficult to get the line of beauty, *J*, children make it thus, *J*. Place a pencil alongside the correct line, and show that the line does not correspond with the line of the pencil, as the child has made it to do.

As the children become proficient in writing, they will distinguish between the “light” lines (which go upward) and the heavier “down” lines; the observance of this difference adds much to the beauty even of slate writing. As soon as they can write well enough to join letters, the children should have groups of words given to them, such as are found in Word-building (see the chapter on Reading). When Transcription is begun, it should be taken from words printed on the Blackboard in the first place, and from books later. It is always a pleasure to children to write their own names, and these should be given as soon as they are able to do them. Sometimes the children may transcribe a sentence which conveys some fact that has been taught in an Object, or other lesson, and which is thus impressed on the child's

mind, for it is always easier to remember impressions conveyed by the eye, than by the ear. For this reason Spelling should be taught, not orally but by writing, and chiefly by the grouping of words sounded alike, as in Word-building.

CHAPTER XXIX.

NUMBER.

IN a Kindergarten proper Number would only be taught as part of the Kindergarten Gifts and Occupations, but, like Reading, it is taken as a separate subject in Ordinary Schools, and for this reason a chapter is here devoted to it. By the aid of Stories, Games and little Plays, Number may be made as easy and delightful as any other subject.

Perhaps the following may seem a somewhat roundabout way of teaching such a simple fact as "two and two are four"; but remembering Rousseau's saying, *viz.*: "What the child *does* it easily remembers," we shall find that time spent in this way is far from being wasted. Moreover, the child is happy in these little plays, and to make it happy is our first aim at this early stage. The Stories which follow are intended for the "Babies," or children under five; they should be told to the children again and again, and the rhymes should be learnt by heart and repeated by the class every time the story is told. Children who have been taught number gradually, in this easy, interesting fashion, develop an astonishing aptitude for dealing with figures as they grow older. This, at least, has proved true in the writer's experience.



FIG. 125.

1st Step. Number Stories.—1. The Farm-yard (Fig. 125). —Objects used: several boxes of Gift III., and four animals (either models of these, or cows, etc., from Noah's ark). Several children may help to make the wall, while the Teacher asks questions, such as, "What is the wall for? Why do we have a farm-yard?" etc. The model should be built on a table or on the floor, so that all may see it. When the wall is finished, a kennel may be made in one corner of the yard, then the trough is placed in the centre, and we are ready to begin. (In Fig. 125 "donkeys" have been substituted for "cows".)

Story. —"This is Farmer Jones's farm-yard, and he has a great many animals, though you do not see them just now. What animals will he have?" Children: "He will have sheep, cows, hens, ducks," etc. "He has two dogs that live

in this kennel; where do you think they are? They have gone to fetch the cows home. The cows are down in the meadow eating sweet, fresh grass and daisies and buttercups. The dogs will run round them and bark. That means 'Go home, Brownie; go home, Whiteface'—those are the names of the cows—and away they go. See! they are coming into the farm-yard (Teacher makes two cows move through the gate). Where will they go? Straight to the trough, you see, to get a drink. Now the dogs are coming. How hot they are with running so fast! They are at the trough too. Two cows and two dogs drinking—how many are there altogether? There are four. Now the two dogs have gone to the kennel to rest; how many are left? Two."

Two cows drink here, two dogs as well,
Now, if you please, the number tell.

Four.

Two dogs have to their kennel gone,
How many cows stand now alone?

Two.

The same story may be used to teach other numbers; but it is better to keep to the very little numbers, 2, 3, 4 and 5, for a considerable time.

Game.—When this story is played as a Game, the children stand close together to form the wall round the farm-yard, a space being left for the gateway. Other children kneeling form the trough, and a ring of children make the kennel. Two little boys are the dogs, and two bigger girls the cows. The "cows" go out of the room first, then the "dogs" are sent to fetch them. The cows come in, walking slowly, then they go to the trough and pretend to drink. Soon the dogs follow, running and barking, and go to the trough also. Then the first two lines of rhyme may be repeated. Dogs go away and the second two lines are said.

2. The Hen and her Chickens.—An interesting story may be told of the hen and her chickens. The Teacher's lap may be the nest where the hen sits with her chickens. Suppose there are three chickens, and two run out to find food, how many are left? and so on. (Balls of Gift I. may be used for this.)

Game.—This story, again, may be played as a game, with a big girl for the mother-hen, and smaller children for chickens.

Mother.

Cluck, cluck, cluck! says mother-hen,
Come, my chicks, come home again

Children.

How they nestle, pretty things!
One, two, three, four, beneath her wings.

First chicken comes out and says:—

One comes out to seek for food.

Children.

Three are left with mother good.

3. The Stable.—Objects used: several boxes of Gift III., and four or five horses.

The walls of the stable are made in the same way as the walls of the farm-yard (see Fig. 125), but the stable must have only three walls, the front is left open so that the "stalls" may be seen.

Story.—When the stable is ready, Teacher says: "Ned is the man who looks after the horses, and brings them home at night; he brushes them down, and feeds them, and gives them a nice bed of straw to lie upon. The horses have to work so hard, we ought to be kind to them. See, two are coming home, here they are! (The two horses are put in two stalls. Bricks will do quite well to represent the horses.) These are cab horses. Now Ned brings home two horses that have been drawing a tram-car. 'These are very tired,' says he, 'I must give them a good supper, and make them a nice soft bed.'

“Two cab horses are here,
 Ned brings two horses more,
 And you will all agree,
 That two and two are four.

“But where is Ned? He must have gone to fetch another horse, for here is an empty stall. He comes up whistling and patting the horse as he walks beside it. This is a cart-horse, it has been drawing a cart full of coal. Thank you, good cart-horse, the coal makes nice, bright fires to warm us. Now the cart-horse goes in its stall.”

Teacher says:—

Two and two, you said, were four,
 Now I see there's one horse more!

Children.

That makes five, we children say,
 Horses five we see to-day.

Game.—This can be played as a game by letting the children form the stable, just as they formed the farm-yard (Story II.). Five of the children would be “horses”. One boy could be Ned the hostler.

4. The Rabbits.—This can be played as a game. Four or five children represent rabbits, holding up forefingers at each side of head to represent the rabbits' ears. At first the rabbits lie hid (pretending they are in their burrows), then one comes out and begins to jump about.

Children.

One rabbit jumping we can see,
 He hops about quite merrily.

(Two more rabbits come out.)

'Two rabbits more! that just makes three,
 They're all as happy as can be.
 If there should come one rabbit more,
 Why, surely, there would then be four.

Game.—The Doll's furniture is put away and ordinary chairs are substituted, a little form would serve for a couch. Who would like to be Mrs. Dimple? A child is chosen. Then two little girls are wanted for "Nellie" and "Lily," a boy and girl for the "lady" and "gentleman," and a little girl to be the maid and answer the door. The four "visitors" go outside the room, and the two little girls knock at the door, and enter first. The rest of the game is told in the story, and acted accordingly.

2nd Step. Recognition of Numbers.—The object of the preceding Stories and Games is to give the children a clear idea of number up to five. They should now be able to recognise 2, 3, 4 and 5, *i.e.*, be able to tell four objects when they see four, without counting them, also 3, 5, etc. The stories and games should be repeated again and again, until the children can do this easily.

3rd Step. Analysis of Numbers.—When the numbers can be recognised without difficulty, the children should be encouraged to analyse them, *i.e.*, tell what they are made up of, but objects should always be put in front of the class to represent the numbers.

Suppose four ninepins to be shown, Teacher says: "How can I divide the ninepins to show what make four?" "You can make them into twos. Two and two are four." "And now," says Teacher, "tell me something else that make four—think of the Farm-yard story." "Two dogs and two cows make four." "But we could have had other animals drinking," says the Teacher, "think now." "Two horses and two donkeys," say children, "two ducks and two geese, etc., etc." "Now look round the room, and make four out of things that you see here." "Two pictures and two slates are four. Two windows and two doors, etc., etc." "Now look at the ninepins again, could I divide them in any other way? think of the 'Rabbits!'" "Two and one and one are four," say the children. "But you must give me objects," says

the Teacher. "Think of the orchard, or the farm-yard, and what you see there, then look at the ninepins and tell me." "Two apples and one plum and one pear are four, etc., etc."

Shells, etc.—The children should now be allowed to have shells, bricks, sticks or other objects, and lay number pictures for themselves. The writer collected some thousands of pretty little shells at Kildonan in the Isle of Arran one summer, and procured a number of "chip" boxes from the chemist at about twopence per dozen. In each box were placed twenty shells, and one box was given to each child. Suppose the number five to be the lesson, each child would take five shells out of its box, and lay them on the desk, thus:— : ∴ or ∴ ∴ or : . : etc. The child should always be able to *describe* what it has done, thus:—the first child would say—four shells and one shell are five, the second—three shells and two shells are five, and so on.

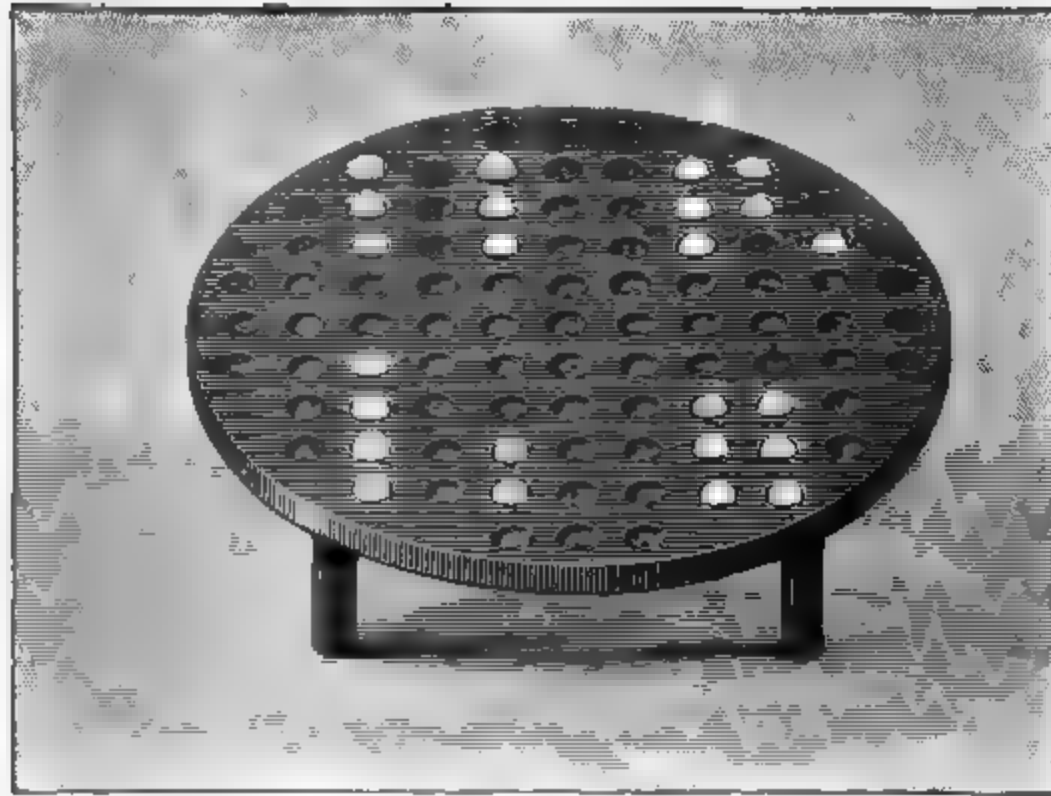


FIG. 126.

The Number table * shown above is very useful for demonstrating the analysis of Numbers. Marbles are placed in the holes as shown, and the children are able to handle the marbles, which is a great advantage.

Higher numbers. — The analysis of six, seven, eight and nine may be taught with the table and marbles (Fig. 126), each number being taken separately, and thoroughly mastered, before proceeding to the next. The children should learn all the different combinations of numbers that make six—three and three, five and one, four and two, three twos, etc.—but always with the objects, and when they have seen the number analysed by the Teacher, they should do it for themselves with shells, bricks or other objects.

The Ball-frame.—This is a useful aid in teaching number,

* See Appendix 18.

out the old-fashioned frame, with twelve in a row, should not be used. There should be ten balls in a row, five of one colour, and five of another. If there are three or four ball-frames in a school, one might be left with twelve in a row to teach analysis of a shilling later, and another might be arranged in twos, that is, five twos in each row, each two having its own colour.

The ball-frame can easily be altered by a joiner, and the balls arranged in twos or fives as desired, but there should be ten in a row for ordinary use, as ten is the *basis* number.

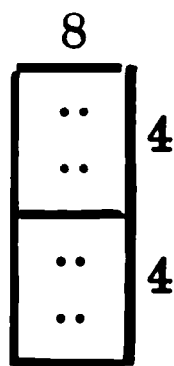
Suppose six to be the subject of the lesson, the Teacher would show it on the ball-frame as three and three, and the children would lay the same with their shells. Then the other numbers making six would be shown, and the children would lay each combination with their shells. When each has been done several times, the Teacher might let the children make "pictures" of six for themselves, without the ball-frame, and ask them to tell individually how they have made up their picture, as in the number five.

Number on Slates.—If the children have learnt how to handle the pencil, they may transfer the number-pictures made with shells to their slates, using dots for "shells," thus:— : : :

Then another "picture" may be made with the shells : : : and this is copied on the slate (chequered side) at some distance from the other. Then another is made and copied, and so on until the child sees on his slate all the combinations of numbers that go to make six. He should be able to read them all out, and because a child remembers what he has done himself, it will be found that numbers taught in this way are seldom forgotten. As the children become more proficient, the two signs + and = may be taught, + means *and*, = means *are*. Then they may put on their slates : + : = : : and use these signs in the analysis of other numbers.

Number Ten.—This is the most important number of all, and it should be thoroughly well taught. The Teacher should show on the ball-frame or the table (Fig. 125) the different analyses that can be made of ten, and the children should lay these with shells or other apparatus again and again. It is necessary to learn these perfectly, for however well any or all of the numbers may be learnt, they are comparatively useless without ten.

Figures.—When the figures are introduced they should invariably be shown with the concrete numbers which each figure represents. Here are four balls : : I will show you a figure that means those four balls, 4, and I will put the four balls beside it, thus :—4 : : Then the children might draw a large square or oblong on their slates, and combine the concrete and abstract as shown.



Money.—When the children know numbers up to ten, they might play little “shopping” games with sixpence. Show them a silver sixpence, and then the six pennies that are equal to it, also the two threepenny pieces. A very nice “shop” can be made by dividing a shallow box into several compartments. In each of these, some commodity or other is placed, flour in one, rice in another, and so on. Currants, oatmeal, salt, and other things will be gladly brought by the children from home at the Teacher’s request. The goods are tied up in little packets, and have the name marked outside, so that each can be returned to its respective compartment when the lesson is finished.

When the children have learnt what sixpence is made up of, *viz.*, six pennies, or three twopences, or two threepences, the play may begin. A little boy stands beside the “shop”; he is the “shopman,” and holds the six pennies ready to give change. A child has the sixpence given to it, and comes to buy.

Customer: “Please, sir, I want a pound of rice”.

Shopman : "Here 'tis, ma'am! Twopence is the price."

"How much change will the customer want?" asks the **Teacher**. Many other purchases may be made, and the actual value should be given to the articles as nearly as possible, so that the children may gain correct ideas of their cost. Halfpence should not be given until later.

Numbers above Ten.—We will suppose that the children know thoroughly the analysis of numbers to ten, and that they are familiar with the figures which represent those numbers. We may now proceed further, and analyse higher numbers. Twelve is a good number to take, and if one ball-frame has been kept with twelve on each row it will be found useful here, or the table (Fig. 125) will answer the purpose.

The children will learn that twelve is made up of two sixes or six twos, of four threes or three fours, of ten and two, eight and four, etc., etc. All this prepares for the shilling, and when twelve is thoroughly known, the "shop" should be again introduced. It will be necessary to have all the coins that make one shilling, except the halfpence, and these should come later. The same "shop" may be used as before, or a "Bakery" with cakes and loaves made in the "clay-modelling" lesson would answer our purpose equally well. We should then have penny cakes, twelve for a shilling, twopenny cakes, threepenny loaves, fourpenny loaves, and sixpenny loaves, which the children would see were sold six, four, three, and two for a shilling respectively. Let the twelve pennies be placed, one on each penny cake, and then show the six twopenny cakes with twopence on each, and the four threepenny cakes with threepence, or a threepenny-piece on each, the fourpenny and sixpenny cakes with their respective values in money placed on them, and the children will grasp by actual sight and experience what a score of abstract lessons would not teach. Other questions will suggest themselves; *e.g.*, we may buy two fourpenny loaves, then we shall want fourpence change, for you know

there will be four pennies left out of the shilling. The children will not remember all this with one lesson, they will need to play the "Bakery" Game a great many times before their little minds can grasp all the different prices, and these of course would not all be given in one lesson. The sixpence and penny cakes would be sufficient for the first, then these with the threepenny loaves added would make a second lesson, and so on.

Number should be taught gradually.—Number, of all subjects, should be taught gradually, seeing that it is to the brain what Physical Gymnastics are to the body. If the limbs are exercised too much, they become useless, and if the brain be used too much, it refuses to act.

Number from Twelve to Twenty.—It is a great help to count by twos to twenty, thus: two, four, six, eight, etc., at the same time using the ball-frame, also by threes, fours, and fives. This prepares the children for the analysis of twenty later. They should also learn with ball-frame, ten and three are thirteen, ten and four are fourteen, and so on to twenty. When the children have seen twenty analysed on the ball-frame repeatedly, they may have the boxes of shells given to them and analyse it for themselves. Then these analyses may, in turn, be copied by the children on their slates.

Numeration.—For teaching Numeration, there is nothing better than Miss Wilson's Arithmetic Frame, * which is shown here, Fig. 127.

* See Appendix 19.

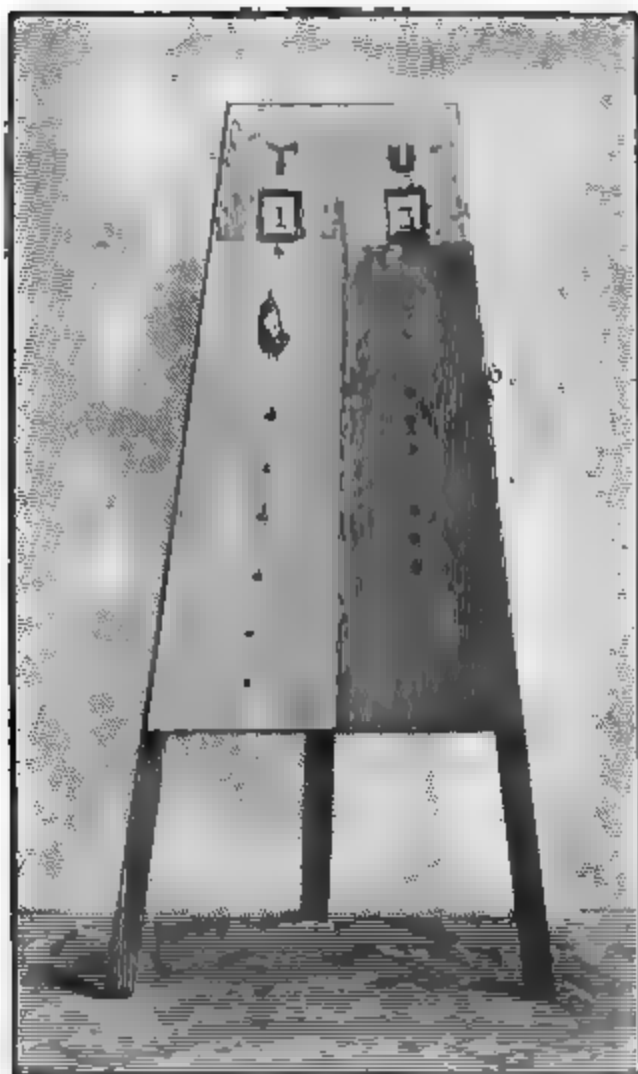


FIG. 127.

The units or *ones*, as the children rightly prefer to call them, are seen on the right. If we move the sliding band so as to show figure 3, we put three marbles in the holes, so that there can be no doubt in the child's mind as to what the abstract three (3) signifies. Teacher says: "When we come to this side, the left, you see a letter T, that means tens, and every figure which is put on this side means so many tens. I will slide the band so that you may see figure 1. Will *one* marble do for *this* 1? No, I must have ten marbles, for the 1 means *ten*; here they are in a little bag.

Let us look in **and** see if there are really ten, then we will hang the bag on the hook. (There are nine bags with ten marbles in each for the tens, and one with nine for the units.) Now we have ten marbles in the bag, and three in the holes, altogether making 'thirteen,' and you see how it has to be written on your slate. Make T in one square and O in the next. Put three under the row for ones, and one under the T." In this way notation to twenty should be taught, and the children should not be allowed to write down any figure between ten and twenty without seeing its equivalent on the Arithmetic Frame. When we come to twenty, two bags are needed, for we know that two tens are twenty, and we must slide the "Ones" band until we come to "0," and that means none. Any number up to ninety-nine can be shown with the frame.

Number for older Children.—The analysis of twenty will prepare for the learning of money up to a sovereign, and here, as in the teaching of a shilling, everything should be shown that goes to make one pound. Cardboard coins* may be used. The two half-sovereigns, which the children will see are smaller and thinner than the sovereign, how much each are they worth? ten shillings each, then the sovereign is worth twenty shillings. You can easily tell the shilling, because it has "One shilling" on it. Then there are the four crowns, worth five shillings each, and the eight half-crowns, worth two shillings and sixpence each. The four-shilling piece has a cross on one side with four arms, you must think that each arm means one shilling; then the two-shilling piece or florin is worth half of four shillings, so its four arms mean only sixpence each. It would be well, even here, not to separate concrete and abstract. If the children are too big to play "shop," they could have twenty shilling caps, or ten caps at two shillings each, or eight at half a crown, and see the coins laid on the caps in each case. Then questions

* See Appendix 20.

such as these might follow : How many florin caps can be bought for one pound ? How many jackets at five shillings each, how many chairs at four shillings each, how many overcoats at ten shillings each, for one pound ? In each case the coins should be placed on the articles, so that the children may have clear ideas of the cost.

How to add to Twenty.—Every number should first be made up to ten, thus if we wish to add together eight and seven, the ball-frame should be used to show that eight and two are ten, and the five left make up fifteen. It will now be seen why analysis of the number ten is so important. This method of making up to ten may require a little more pains to make it quite clear to the children than the old way of counting by units, but it is infinitely easier, and secures results far more correct when it is once thoroughly mastered. Take, *e.g.*, eleven and eight. How much easier to say eight and one are nine, and ten more nineteen, than to say *eleven* and go on to count eight more ! It is impossible to adopt this method unless analysis of numbers to ten has been thoroughly learnt, and it would be better for children to know well the numbers to ten, and go no higher than this in the Kindergarten or Infant School, than to enter the Upper Departments with a confused notion of numbers up to one hundred. Ten should be the basis of all our reckoning, and if the children know ten, and the numbers which precede it, they can soon be taught the rest. Little children should not have “ sums ” given them to do on their slates, for “ sums ” are made up of abstract figures, and children of tender years cannot grasp the abstract. It only stunts their mental growth to give them symbols without meaning.

If they understand what the figures really mean, the concrete expressions may be dropped in analysis on slates, and the children may analyse with figures only, thus : $5 + 5 + 5 + 5 = 20$, $8 + 2 + 5 + 5 = 20$, and so on. It will be seen how readily the children may pass from this to the adding of

columns of figures. "Here," says the Teacher, "we have figures under each other, and it means just the same as if they were written all in a line with 'and' between, thus: $6 + 2 + 4 + 3 =$, so you must just say *and* between each of these figures in the column, and write the total underneath."

Further illustrations of Division of Numbers.—The children will already know something about Dividing numbers from learning that one shilling could be divided into six twos, etc. The way in which one pound was divided would also help them to understand more clearly the same principle.

To teach Division further, say of twelve, bring out twelve boys, let them be soldiers and march first all abreast.

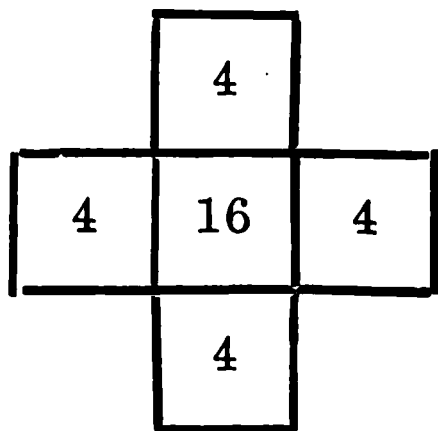
How many rows of soldiers, marching twelve abreast, can be formed from twelve? Only one. But suppose we have six abreast? There would be two rows. Why? Because there are two sixes in twelve. Then let them march four abreast, three abreast, two abreast. They might also march five abreast to show that there are two fives in twelve, and two over.

Then questions such as these: Six feet, how many boys? first letting them *see* the feet. Twelve hands, how many boys? eight horns, how many cows? etc.

In learning the multiplication table, the children should first see it with objects. Let them see the five twos that make ten shown on different rows on the ball-frame, and when they write it, they should at first put the five twos thus: $2 + 2 + 2 + 2 + 2 = 10$, before proceeding to the ordinary signs, $5 \times 2 = 10$.

To make variety, a figure learnt in Drawing might be used, say for multiplying by four, thus:—

Number to One Hundred.—When the children are conversant with numbers up to ten, it is very easy to teach them one hundred.



Show four balls (one on a row) with the ball-frame. "What do you see?" "We see four balls." Put the four balls back. Bring out four tens. Now you see, not four *ones*, but four tens, and instead of saying four tens, we say four-ty, or for-ty.

Then show six tens, six-ty, eight tens, eight-y, and so on. Now if I asked you, "How many are four and four?" you would say "eight" directly, and it is just as easy to add four tens and four tens as to add four and four. Show four tens and four tens, with a space between, the children will soon see that $40 + 40 = 80$.

When the children understand one hundred with the ball-frame, they will soon be able to do notation of figures to one hundred.

CHAPTER XXX.

FORM AND COLOUR.

THE Gifts and Occupations afford material for endless illustrations, both of form and colour, as is shown in the chapters on these subjects, and where the Kindergarten Gifts, etc., are largely taught separate lessons in Form and Colour need not be given ; but as very few teachers take more than a small proportion of the Gifts, etc., the following notes may prove acceptable.

In many schools a lesson is given on Form and Colour at least once a week. The different forms are kept in a box, in which there are also squares of cardboard, showing the various colours. This apparatus should however be amply extended. Pieces of silk or coloured paper should be kept in another box, and coloured wools wound on pieces of cardboard show the colours nicely. Whenever possible, the Kindergarten Gifts should be used to illustrate.

The object of the lesson.

The object of the lesson is not simply to teach the shape or colour of one particular piece of wood, or cardboard, but to enable the child to distinguish the same shape or colour whenever it sees an example of it. Thus the child is helped to observe and compare, and its interest in life is strengthened, as it learns with joy to find out things for itself.

A little two-year-old child strayed one morning into a Kindergarten, and heard the teacher talking to a class of children about "oblong" shape. In the afternoon, as the little child was playing on the hearth at home, he spied the coal box with its shining blocks, and going up to it, he picked

out a piece of coal of a perfect oblong shape, and carrying it to his mother exclaimed joyfully, "Dis oblong, mamma". This shows that the lesson had achieved its object, for even the youngest child knew the shape when he saw it again.

FORM.

The Circle, or round, is the first form to be taught, and it should be illustrated by numerous examples, such as a plate, a round cake, coins, etc.; all these things should be shown to the children, also the toy pail, coffee-pot, and watering can, p. 251, all of which show the round shape. Then the circle may be compared with the ball, and the children are asked: "What things are round like the ball?" "Orange, apple, etc." "And what things are round like a circle?" "A penny, a shilling, etc." "What has the circle that the ball has not?" "The circle has two flat faces, and the ball has only one round face."

The Square is somewhat familiar to the child, who has noticed the squares on his slate, and on the chequered table. It has four sides all the same length, this fact may be taught thus: Take a long stick such as is used for stick-laying. Teacher says: "I will measure the sides of the square. Johnnie shall hold it for me" (measure the top edge, and cut off a piece of stick just the length). Show it to the children, and say: "This stick is just as long as the top edge of the square. I will give it to Mary to hold. Now we will measure the bottom edge" (again cut the length). "This is the length of it" (holding up the stick). The right and left sides are measured in the same way, and the child now holds four sticks. Let the children count how many sticks there are, and notice also that all four measure exactly the same, and then they will see that the square has four sides all the same length. Then ask for objects of this shape.

The Oblong is measured in the same way as the square, and the sticks are cut the lengths of its sides. The

children then see that the sticks cut to represent the sides of the oblong are not all of the same length, but that two are short, and two longer, so the oblong must have two long sides and two short sides. Let a child point to the two long sides, and another to the short ones. Then the children are asked to name all the things they can see that are oblong in shape, such as the table, door, window. They may also name objects at home—dresser, piano, bed, and many common things.

These shapes may be further illustrated in Stick-laying, and other Kindergarten Gifts.

The square has four sides
All measuring the same ;
The oblong two short and
Two long sides can claim.

The Oval is frequently taught after the circle, but as the difference between square and oblong is more marked than the difference between circle and oval, the former comparison if taken first may help the child to understand the latter. Take a square out of the Form box and draw a circle on it, then take the oblong and draw an oval shape upon it. Ask the children, "How is this shape different from the round shape on the square?" "It is longer." "Why?" "Because the oblong is longer." Now show the oval from the Form box with the round or circle. "How is the oval different from the round?" "It is longer." "What things do you know that are shaped like the oval?" "An egg, a basket, a bath, a dish, etc."

The Sphere, Cylinder, Cube, Cone and Pyramid are solid figures. The cylinder can be made from the sphere, the cone from the cylinder and the pyramid from the cube. The three former are compared in the chapter on Gift II.

The pyramid points upward, so,
But it is square and flat below :
The cone is pointed, too, and round ;
A sugar loaf like it is found.

The children soon learn the difference between the Cone and Pyramid, and if they are allowed to make all these solid figures in clay they will remember them more easily.

The oval shape is like an egg,
The circle's round as all can tell,
The sphere is round, just like a ball,
The cylinder you know quite well ;

2. We roll it gently on the ground,
For it is very smooth and round ;
It has two faces flat, you see,
And stands, as well as rolls for me.
3. The cube has six square faces, flat,
And corners eight, just think of that !
And edges twelve, three fours you know,
Which round the faces always go.

The Pentagon, Hexagon, Octagon and other similar forms should be learnt by drawing them on the chequered slates. The figures introduce the obtuse angle, and before the children learn the shapes, they should understand clearly the difference between the right, acute, and obtuse angles. This is shown in the chapter on Gift V., p. 67. The hexagon and octagon can be combined so as to make pretty designs which may be used for perforating and embroidery. See Fig. 84, p. 142.

The "Forms" may be further impressed on the mind of the child by means of a Story; see the one given after "Colour," at end of this chapter.

COLOUR.

Colour should be taught, not from the coloured cards, but from objects and pictures. The six colours shown in Gift I. are the first to be learnt; these can be illustrated by fruits, as an orange, a rosy apple, a purple plum, a red cherry. The children's dresses, their eyes and hair, can all be brought into a lesson on colour. In spring and summer, flowers make charming illustrations, *e.g.*, different colours

seen in roses, and the autumn-tinted leaves can be used likewise.

Then there are colours in pictures, trees, etc., besides the coloured wools, beads, tablets, etc., used in the Kindergarten Occupations.

Ask for flowers and fruits of certain colours, *e.g.*, what flower is yellow? What fruit is red? etc., also colours of birds and animals, and let the children say what colours look nice together. In summer this may be shown by arranging a number of flowers in a bouquet.

In the flowers themselves colours always harmonise, *e.g.*, forget-me-not is blue, and has a yellow centre, because blue and yellow look pretty together.

Spring flowers are mostly yellow, and have pale green leaves, for green and yellow look pretty together.

The red poppy and blue cornflower look pretty among the yellow corn, and there are yellow flowers among the corn also.

Harmony of colour may be further illustrated by the dressing of a doll, or a story of a little girl who was taken to the shop by her mamma. The little girl was to have a new dress, cloak, and hood; what colours would her mamma choose?

Secondary Colours.—Teach that red, blue and yellow are the first or primary colours, from which other colours may be made. A child's box of paints and six small tumblers (which may be bought at one penny each) are required for the following illustration. Pour a little water into each tumbler, and mix a little red paint in one, a little blue in the next, and a little yellow in the third. These are the **primary** colours. Let us see what can be made by mixing *two* of them together. Take an empty tumbler. Pour in a little blue water and a little yellow. Mix together and the children will see that *green* is produced. Now take another tumbler and mix blue and red in it; this makes *purple*. In another

tumbler show that red and yellow make *orange*. “What beautiful thing have you seen in the sky showing all these colours?” “A Rainbow.”

This is a most interesting lesson, and if the tumblers, etc., are not obtainable, the same experiment may be shown on a piece of white cardboard. Paint the colours in stripes on the cardboard, first the three primary, which should be allowed to stand; then the secondary are produced by rubbing one colour over another, *e.g.*, paint over the red with blue, and purple is produced. Over the blue stripe paint a little yellow, and we have green. Over the yellow stripe paint red, and orange is seen.

The primary colours are Red, Yellow, Blue,
The Red and Blue mixed will show Purple to you ,
Mix Yellow and Blue if you wish to make Green,
Mix Yellow and Red, then bright Orange is seen.

Story.

After the forms and colours have been learnt, they may be woven into an interesting story, thus: “A man had a large piece of land to make into a garden; he gave a piece to each of his children, and said they might make small beds of any shape that they liked. So Johnnie made a *round* bed” (draw shape on board, and let children copy on slate), “and Willie had a *square* bed; Mary said her bed should be *oblong*, and Nellie made hers *oval*” (draw each on board, and let the children copy). “Then Gerty wanted hers to be the shape of a *semicircle*, and Harry said his should be very pretty, for he would make it *crescent* shape, like the moon.” When the blackboard is full of shapes the Teacher might say: “Now you would like to know what these children had growing in their beds. Johnnie had a *pink* rose-bush in the middle of his bed.” (Perhaps some child has sewn a pink rose in the embroidery lesson, and if so, this might be pinned in the centre of the circle on the blackboard.)

“Willie sowed red Poppy seeds in rows in his square bed, and Mary had a yellow Iris in the centre of hers, with blue Forget-me-nots all round. You remember that blue and yellow look pretty together.”

Whenever possible, pin the flower named on the shape representing the flower bed.

The story should be continued until all the “beds” have flowers in them. The children may be allowed to suggest names of flowers and should be encouraged to choose colours that will harmonise.

CHAPTER XXXI.

NATURAL HISTORY AND OBJECT LESSONS.

IN a school where Fröbel's principles are taught, the love of animals is inculcated from the child's earliest years. The animals introduced into the various Kindergarten Games, and impersonated by the child, give it an interest in, and a love for its "little brothers and sisters lower down," and if this love of animals has been further cultivated by the tending of pets, as mentioned in Chapter I. the child will be quite ready to receive further knowledge about a subject in which it is already much interested.

Aim of Lesson.—The aim of the lesson is to *deepen* the child's interest, to rouse its desire to investigate for itself, and to make the study of animal life attractive. In this way its love for all living creatures will be strengthened.

Points to be considered.—In giving a lesson on any animal, the Teacher should be careful to select the chief points of interest in the particular animal.

An inspector was one day listening to a junior teacher, who was giving a lesson on the "Cow". He remarked to the head mistress that he had several times listened to lessons given on this subject, but never once had he heard a teacher tell the children that the cow had no teeth on the top row at the front. The mistress admitted that she herself was ignorant of this peculiarity, and yet it is one of the features which distinguish the cow and its companion ruminants from all other animals. Some teachers will

spend a whole lesson in teaching the children that the cow has four legs and a long tail ; that it is covered with hair, etc., forgetting that all these facts are patent to the child from its own unaided observation. If we want to rouse its interest we must go further afield. Let the child learn the points which are *characteristic* of the animal, and by which it may be distinguished from other animals. Suppose the subject of the lesson to be the cow, the Teacher should have a good picture of the animal, or better still a model. After referring to its horns, which are a peculiarity of this class, and other details that are readily perceived, she would say, "If the cow could open its mouth and let you look inside, you would see that its teeth are not like yours, for it has no front teeth on the top row". (Explain to the children that as the cow eats only vegetables, two rows of sharp teeth are not needed, but it wants very good grinders, because it chews its food so much.)

The cow has some brothers and sisters (other ruminants) that have just the same kind of teeth ; we shall learn their names by-and-by. Next we will look at the cow's feet. The Teacher should show the children a cloven foot if possible.

It is only by seeing the real foot that the children learn that it is divided into two parts, or cloven. We have now learnt three things about the cow.

1st. It has horns.

2nd. It has no teeth in front, on the top row.

3rd. It has cloven feet.

"Have you ever seen a cow lying down in the field, and moving its jaws, as if it were eating? It is chewing its cud. The cow bites off a lot of grass, and swallows it ; then it lies down, brings the grass up into its mouth, and chews it." We have now learnt four peculiarities of the cow, these should be written on the blackboard, and then the children might be asked for the names of other animals of the cow *family*—the stag, the sheep, the goat would be named.

The writer once heard a model lesson given by a very clever student of Natural History (who is also an Extension Lecturer, Victoria University) before a number of teachers and others. The subject of the lesson was the Cat, and the Teacher had a fine large cat in a basket; she had also a lantern apparatus, and a home-made model of the cat's paw. Nearly the whole time of the lesson was spent in teaching and illustrating two facts, but these were so well taught that neither the children nor the adults who heard them will ever be likely to forget. 1st. The children were asked to look at pussy's eyes, and to notice the size of the pupils. Then the cat was taken into a dark room for a little while, and when it was brought out, its head was covered, so that the children might see its eyes just as they were in the dark room, where the pupils expanded. "Now," said the Teacher, "you know why the cat can catch mice in the dark. Look at her eyes!" Illustrations of the expanded pupil were thrown on the canvas, where the eye was seen greatly enlarged. 2nd. The next point was the cat's paw. A child was asked to feel it. "How soft and velvety it is!" "But what can pussy do? something that would make you afraid to take hold of the paw." "It can put out some claws." The Teacher then showed, by means of the model, how the cat draws in its claws, or puts them out at will. This was further illustrated by lantern slides. The Teacher spoke also of the cat's "near relations" as she called them, the tiger, the lion, the leopard, and jaguar. Another lesson might be devoted to other striking characteristics of this family, their sharp teeth, rough tongues, and their liking for flesh. The children would be interested to know that all these animals walk on tip-toe and that they are called beasts of prey, and hunt for their food.

Gnawing Animals.—This class of animals is very interesting to the children, because they are often kept as pets. The squirrel, hare, rabbit, mouse and rat belong to this family.

1st. They all have two sharp front teeth at the top, and two at the bottom. These teeth are so hard and sharp that they will bite such things as wood.

2nd. They are all of a timid nature and like to hide away (refer to their homes).

3rd. They all eat vegetables.

4th. They are all covered with soft, warm fur.

Every lesson should be accompanied by blackboard sketches. A Teacher who was giving the "Rabbit" as a Natural History Lesson had prepared beforehand a sketch of this animal on the blackboard. She had drawn also a rough representation of its burrow, with a "baby" rabbit just coming out, which delighted the children exceedingly. Another Teacher sketched a pond with rushes to illustrate the home of the frog, which was seen lying on the bank. A lesson thus illustrated cannot fail to leave a vivid impression on the child's mind, and to fix what is taught in his memory.

Object Lessons.

Object Lessons, so called, are not given as part of the routine in a Kindergarten proper, because every subject is treated as an Object Lesson. But as Object Lessons do form a separate subject in many schools, it is necessary to devote a few pages to the subject.

Aim of the Lessons.—The aim of the lesson should be to impart to the child so much knowledge of everyday common objects, that it will be interested in everything around it. The things nearest at hand should come first, and the Teacher should try to give the children intelligent ideas about everything, and thus to help the growth of Intelligence. Let the children learn to define each object that they see, *e.g.*, "What is a chair?" "It is something to sit upon." "What is a table?" "It is something to put things on." "What is a slate?" "It is something to write upon."

“What is a pencil? What is a shoe?” “It is something to wear.” “What is bread?” “It is something to eat?” Such questions as these should be asked every day. Then the children will be ready to learn a little more about these everyday objects. It is not necessary to give a whole lesson to each subject, but the children should know that the slate on which they write is dug out of the ground, that the frame has once been part of a tree, and that the pencil is made of a soft kind of slate. The bricks in the wall are made of clay, which also comes out of the ground. In time the children will learn also that all the things we eat are called *foods*, and instead of saying that bread is something to eat, they can say, bread is food. They should also know what their clothes are made of—some are made of wool, that comes from the sheep; some of cotton, which grows on a plant; and boots, etc., of leather, which is made from the skins of animals.

A school manager once asked an inspector what he would consider an intelligently taught school, and the latter replied, “A school where the children would be able to define a common object and tell something about it”. Heterogeneous lists of Object Lessons should be avoided, and such subjects should be chosen as can be further illustrated in Kindergarten Gifts and other lessons. See the “Table of Connective Lessons” at the end of Chapter II.—Description of a Kindergarten.

Many of the conversations which introduce the various Kindergarten Gifts are Object Lessons, *e.g.*, the talk about the “Tree” which precedes “Stick-laying”; the conversation on “Iron” in “Ring-laying”; the “Cotton” that is used for “Thread-laying,” and many other subjects, which will be found in the chapters on the Gifts and Occupations. An Object Lesson that is connected with the various Gifts and Occupations has an infinitely greater educational value than a lesson that stands isolated from other subjects; and the

Teacher who has learnt how to illustrate Object Teaching thus, has grasped Fröbel's idea of *connectedness*. In an Exhibition of Kindergarten work, done by children in the Infant Schools of a provincial School Board, some very good examples of connective lessons were shown. To illustrate a lesson on the "Potato," the children had :—

1. Modelled the Potato in clay.
2. The Potato plant had been "perforated".
3. The "Sacks" had been drawn, perforated, and stitched.
4. The "Cart" was drawn and coloured, also the Potato.
5. The implements for gathering and weighing the Potatoes were drawn, while
6. Paperfolding illustrated the Cruet, Salt-cellar and Table-cloth.

Would the children be likely ever to forget a lesson that had so many delightful connections! Then there are the Kindergarten Games to be added, and other subjects, some of which are shown in the "Table of Lessons" referred to before.

CHAPTER XXXII.

SIMPLE OBJECT LESSONS FOR BABIES.

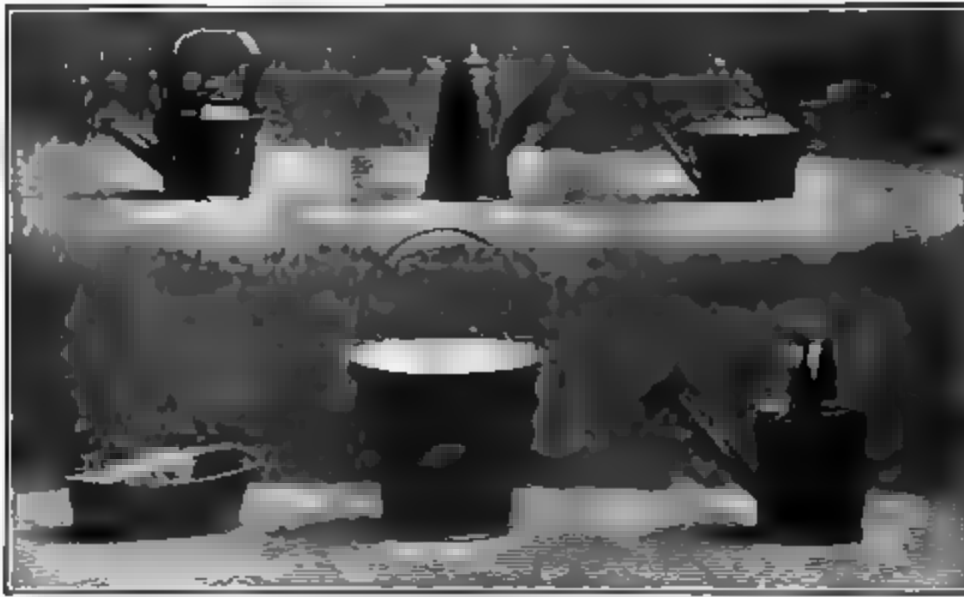


FIG. 128.

THE articles shown in the above sketch may be used as object lessons for very little children with great advantage; they are made of tin, and can be obtained * at a very small cost. Toys are always interesting to children, and a toy kettle or tea-pot enlists the attention much more readily than would the same article in an ordinary size

The following conversational sketches will give some idea of the way in which these toys may be used.

Pail. Suppose the Pail to be the subject of the lesson, the Teacher would ask, "What is this? What is it used for? What have you seen put in a pail? What shape is the

* See Appendix 21.

pail? What other things are round?" etc. Then the different parts may be mentioned—the handle, the rim, the bottom. "What other things have handles? What is the pail made of? What other things are made of tin? Where does tin come from?"

Kettle.—The kettle would be talked about in the same way, and then compared with the pail. "We put different kinds of things in the pail, in the kettle we put water only. What has the kettle that the pail has not?" "It has a lid." "Why? And it has a spout. What is that for?"

Teapot.—Proceed as with the pail, and then compare. "What has the Teapot that the kettle has?" "It has a spout." "What have you seen coming out of the spout of the teapot, and what from the spout of the kettle? The teapot has something else like the kettle—it has a lid. What is the lid for?" "It is to keep the tea warm, and to keep the dust out." "Now there is something about the teapot that is different from the pail and kettle. What is it?" "It is the handle, which is at the side of the teapot instead of on the top."

The Coffeepot is similar to the teapot.

Watering Can.—In this object we have increased scope for comparison; the watering can has a "rose" in addition to its spout, and here the child sees both kinds of handles on the same object. "Why does the watering can have two handles?" "One is for carrying, the other for pouring."

Bath.—This object is a complete contrast to the others. It has no handle or spout, and the shape is different.

All the objects may be put in various positions, as was the ball of Gift I., and in answer to the question, "Where is the kettle?" the children reply, "The kettle is on the table, on the floor," etc. In this, as in all the conversations, the children should always answer in complete sentences.

The following game is taken from "Guessing Games" * by permission.

* See Appendix 8.

The class forms a ring, and one child, standing in the centre, is blindfolded; or the class may be seated, and the blindfolded child may stand in front. One of the objects is then given to the child, who must try to tell the name by feeling it, while the children repeat:—

There's an object you know well,
From its shape the name you'll tell.

This exercise strengthens the memory, and develops the sense of touch; the child should be asked how he knew the object, and the answer should be given before the eyes are uncovered.

Furniture.—A set of doll's furniture may be made the means of imparting much valuable information in a pleasant and attractive way. The different kinds of chairs—armchair, rocking-chair, and ordinary chairs—are compared and talked about. “What other kinds of chairs are there?” “Basket, bedroom, kitchen, and garden chairs, a baby's chair, teacher's, father's and mother's chairs, folding-chairs, bath chairs,” etc.

The Couch.—Compare this with the chair. “How is it different? What is the couch for?” “It is to lie or sit on.” “What is the chair for?” “To sit on.” “What other things can we lie upon besides the couch?”

The Table.—“What is a table? What is it for? Who made it? What does it stand upon? Could it stand on anything instead of the four legs?” Some of the children will probably have seen tables with a pillar in the centre, or round tables with three legs. “What shape is this table? What other shapes have you seen?” “Round, oval, square, oblong, octagon shape,” etc.

The Bed.—The children may learn many things from the bed. First name the parts—head, foot and sides, then the mattress, bedding, pillows, sheets, blankets and quilt, and what all these are made of. “Two little Maids,” in

Recitations for Infants,* may be recited in connection with this lesson. Two dolls are needed with clothes that can be taken off. Two little girls take possession of a doll each. The first doll represents a careless, little girl, and as the recitation proceeds, the doll is undressed, and its clothes are tossed about just as described in the rhymes and then the doll is put to bed. The second doll is also undressed, and now each garment is neatly folded, and placed on a chair as described by the verses; and then this doll is put to bed. Besides making the lesson more interesting, this practical demonstration of the careless child and the tidy one impresses the children as no abstract lesson possibly could.

* See Appendix 22.

CHAPTER XXXIII.

PICTURE LESSONS.

PICTURES should adorn the walls of every Infant School and Kindergarten. There is nothing that adds so much to the cheerfulness of a room as bright, pretty pictures hanging on the walls, and of all the places that should be made bright, the schoolroom is one of the first in importance. Many beautiful coloured pictures have been published with the Christmas numbers of various magazines. Those which have children as the subject are, perhaps, the most interesting, but there are many others that are suitable also. Besides brightening the room, pictures are invaluable as lessons for developing the children's intelligence, and making them interested in their surroundings. They are also excellent as a means of teaching children to speak in complete sentences, and they make a delightful lesson for the very youngest, as well as for older children. Those pictures that show people doing something are the most to be desired.

Blowing Bubbles.—This picture is chosen as illustration because it has been so widely circulated, and is therefore well known.

1. What we can see on the picture.—The figures and objects to be seen on a picture will first engage the child's attention, and the Teacher therefore asks first, "What do you see on this picture?" The children will answer, "I see a boy, a basin, a pipe, a log," etc.

We do not stop to ask full particulars of these objects just now, for the most interesting thing to the children is—

2. What is being done.—“What is the boy doing?” “He is blowing bubbles.” “What does he blow them with?” “He has a pipe.” “What will there be in the basin? Why does the boy look up?” “He is watching the bubble until it bursts.” “Perhaps he is sorry to see it burst. Why should he be sorry?” “Because it is so pretty.” The Teacher would probably let the children see how bubbles are blown in reality, and they would then notice the pretty colours which each shows, and would probably remember that the colours of the rainbow are the same as those seen in the bubble. When the *doing* has been exhausted the children will be glad to notice other details of the picture.

3. Other details.—“Where is the boy? What is he sitting upon? What kind of coat has he? What is the basin made of? Why does the boy have a basin made of wood? What else might the basin be made of?”

The answers to all these questions must be given in complete sentences.

The above little sketch of a picture lesson will be sufficient to indicate how the conversation should be continued. As we said before, this is a subject that offers a wide field for developing the child's power of intelligence, and giving him information on a variety of subjects. Take, *e.g.*, a picture of some water, and maybe a boat with people in it, on the water. The Teacher, after taking the *doing* part of the picture spoken of in the previous lesson, asks, “What kind of boat is this?” (It may be a rowing boat.) “How do they make it go?” “They row with oars.” “What other kind of boat do you know?” “There are steamers,” say the children. “What makes them go?” “They have a steam engine.” “What else is made to go by steam?” “A train, machinery,” etc. “What other kind of boat do you know of?” “There is the sailing boat.” “What makes that go?” “The wind makes

it go." "How?" "It fills the sails." "There are also canoes, yachts, lifeboats, etc."

Then the water may be talked about in the same way, (perhaps the boat is on a river). The Teacher will ask, "On what other water might the boat sail." "It could sail on a lake, pond, sea, etc." "How is the sea different from the other water?" This is enough to show how various and extensive is the ground covered by a good picture lesson. Sometimes it is possible to find a recitation or a song that will illustrate the picture nicely. The recitation "Blowing Bubbles," p. 267, might appropriately be used with the picture of the same name.

CHAPTER XXXIV.

STORIES.

STORIES are the “spice” of childhood. The eager delight with which children beg for a story, and listen while it is told, is in itself a plea for stories, and if the school routine does not admit of a certain time being set apart for story-telling, five or ten minutes between lessons might sometimes be utilised for this pleasant exercise. But there are many reasons why stories should form part of every Infant School and Kindergarten curriculum.

1. Use of Stories.—*a.* In the first place, story-telling may be made the means of helping the children to acquire familiarity with good English. We all know how limited is the child’s vocabulary, and how difficult it is for a child to express his thoughts. Sometimes when a fact is perfectly well known, the language is wanting in which he can express it.

b. The child’s sympathy may be cultivated and developed by means of stories. He becomes intensely interested in the subject of the story, and for the time being almost lives the incident over again in his own little life. A very little child was one day listening to a story about “A lazy boy who missed a school picnic because he was so slow in getting ready. The school children were all on board the steamer, the bell rang, the moorings were loosed, and away went the boat just as the late little boy came running down to the pier.” The little listener followed the story intently *up to this point*, and then burst out, “Oh! Auntie, couldn’t

they get a little rowing-boat and take him out to the steamer? I don't like him to be left behind." Stories, then, enlist the sympathy of the child.

c. Story-telling strengthens the child's power of imagination. Let us be careful to develop the imagination in a right direction, and not to feed it with anything coarse or cruel. This will be again referred to later.

d. The stories offer opportunity for inculcating moral truths, as will be seen subsequently, and sometimes it is possible to teach by stories truths that would be difficult to teach in any other way. The following instance illustrates what is meant.

A governess, who had three or four little children under her care, found one of them, a little girl named Olive, particularly disobedient and tiresome. No amount of talking seemed to have any effect, and the governess was puzzled to know what to do. One morning, however, as little Olive was being dressed, she begged for a story, and the governess told one about the doings of a naughty child, which Olive quickly recognised as *her own actions* of the previous day. After this her behaviour was a little better, and the next morning she asked, "Will you tell some more about the little girl, please?" This time the story was a little more hopeful, and so it went on day after day, until it came to pass that a good, obedient child was the subject of the story, instead of the naughty, disobedient one. The governess told the writer this incident herself, and said that the child was transformed by means of these simple recitals, where she saw herself in a different light, and realised that her conduct caused unhappiness to others.

Another instance might be given of a little boy, who had a violent temper, and would throw himself on the floor in a passion when his will was crossed. One day in his cooler moments the Teacher told him a story of a little boy who grew up with a bad temper, and became a wicked man, and

STORIES.

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he will gratify this morbid taste by reading
as he grows older, and if, on the other hand,
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‘your nuts are acorns, how pretty they are! each one of them has a little cup. I do not wonder that the squirrel comes to see you, for he likes your nuts so much.’” This shows the method pursued in these stories. The oak tree would make many such.

(*d*) **Stories for very little ones.**—These should be exceedingly simple. A dog, a kitten, a bird, anything that comes into the life of a little child, he is delighted to hear about. Many such stories are given in the chapters on Numbers and Reading, and others will suggest themselves to the Teacher. They should all be told in baby language, *i.e.*, in language that the child can comprehend. Pictures often suggest a story, which is all the more interesting for being thus illustrated.

The children should sometimes be encouraged to tell what they can remember of the story. In this way they learn to express themselves.

3: The Story-Teller.—(*a*) We have said before that the language should be simple and easy to understand.

(*b*) The voice should be modulated, and the story-telling is much more effective when gesticulations are used. The flying of birds, the rustling of leaves, etc., should be accompanied by hand movements on the part of the Teacher.

(*c*) The story-teller should be in sympathy with the subject of the story, and also with the listeners, otherwise the interest will be lost.

(*d*) Just as pictures add interest to a story, so do illustrations on the blackboard, and these should be frequently given. Sometimes the children may be allowed to draw for themselves objects which have been mentioned in the story.

4. The after-effect of Stories.—It is well to remember that the child’s taste for reading is largely influenced by the class of stories told to him in early life, and in these days of plentiful, cheap literature, how important it is that the youthful mind should be trained to appreciate that which

is good. If a child has learnt to gloat over horrible stories, he will gratify this morbid taste by reading ghastly tales as he grows older, and if, on the other hand, he has learnt to love stories that are simple and pure, he will choose reading that is good and elevating.

CHAPTER XXXV.

RECITATION.

RECITATION, like story-telling, increases the child's power of language, and it also has the advantage of strengthening the memory.

I. Choice of Recitations.—The words should be simple and easy to pronounce. Verses which tell a little story are interesting. The pieces should not be too long, and for the very little ones the lines should be short also. It is very difficult for children to learn rhymes that have two or more lines commencing alike, thus :—

Little baby, point to baby,
Little baby, stoop my baby,
Little baby, curtesy baby,

would be confusing to a little child. Songs of nature are very suitable ; take, for example, the little poem by William Blake :—

Little lamb, who made thee ?
Dost thou know who made thee ? etc.

Nursery rhymes are always liked by the children, and fairy tales put into verse are acceptable. In *Recitations for Infants* * two of these will be found, viz., “Red Riding Hood” and “The Three Bears”. The Recitations in this book have the actions specified.

It is well sometimes to let the children learn something

* See Appendix 22.

comical and amusing, but this should never degenerate into descriptions of cruelty.

2. How the Recitations should be taught.—(a) The recitation should be read to the children by the Teacher, and should be made the subject of conversation, so that the children may have a clear idea of what they are going to learn.

(b) Then the children repeat slowly after the Teacher, who must be careful that each word is pronounced correctly. Sometimes it may be necessary to give only one word at a time, *e.g.*, if the Teacher said “morning light” the children might repeat “mornin’ light,” so “morning” should be given alone, and it is well to exaggerate the *ing* somewhat to make it noticeable to the children: *h*’s, *d*’s, *t*’s, and *r*’s at the ends of words should also be very clearly pronounced, if not exaggerated, and it is absolutely necessary for the children to watch the Teacher’s lips all the time, if they are to get the correct pronunciation.

(c) Emphasis is another point to be considered. If the important words are not emphasised, the recitation becomes monotonous, and does not convey half so much meaning to the children. A few well-timed questions would soon show which words needed emphasis. In the following rhyme; *e.g.*,

A fox went out to walk one day,
And to the farm-yard came,
The ducks and hens soon scuttled off,
They knew his little game,—

such questions as these might be asked, “Who went out?” “The *fox* went out.” Then we must put “force” on the word “fox”. “Why did he go out?” “He went out to *walk*.” “Where did he go?” “He went to the *farm-yard*,” and so on, always emphasising the word that answers the question.

(d) The voice should be modulated according to the words that are being recited, the children should never be allowed

to shout, and monotonous recitation should be carefully avoided. The children should recite as they would talk, naturally, and as if they were *telling* the story contained in the verses.

THE FLY'S BATH.

1. A poor fly one day
To some milk found his way,
And thought he would take just one sip,
But ere he could stop,
He tumbled, flip, flop!
And instead of a sip got a dip.
2. "Oh, my wings are all wet,
And if out I could get,
I never would come here again!"
'Twas thus spoke the fly,
Who longed to be dry,
And fly back to his old window-pane.
3. Just then cook came by,
And, seeing the fly
Try so hard to get out of his plight,
She lifted him up,
To the rim of the cup,
Where soon he did put himself right.

THE ROBIN.

1. You pert little, sweet little robin,
Perched there on the old garden wall,
Half tame, and half shy, you are peeping,
I wish you would come at my call!
2. I'm sure you're a dear, pretty creature,
Your feathers, so bonnie and green,
With the red on your breast, make a dress
That is fit to be worn by a queen.
3. Come near, robin red, and don't fear me,
Come eat up the crumbs from my hand,
You would not look timid and frightened,
If only you could understand.

4. For, surely, I never would hurt you,
I'd pet you, and keep you so warm,
And love you from morning till evening
And nothing my darling should harm !

BLOWING BUBBLES.

1. Seven little toddlekins
In a long, straight row,
Sitting on a high, stone wall,
In the sun you know.
What can they be doing, pray ?
Let us go and see
Why they laugh, and why they shout
All so merrily.
2. Freddy has a long, clay pipe
In his little hand ;
Annie holds a mug in hers ;
Now, I understand !
Soapy suds are in the mug,
And the children there
Watch the bubbles, as they rise
High into the air.
3. Some are large, and some are small
Some go very high,
Now the boys are running, see !
They to catch them try.
One went higher, higher far
Than a tall, tall tree,
And the breezes play with some,
Floating light and free.
4. Red and purple, yellow, green,
And blue the bubbles show,
Orange, too, and indigo,
Like the big rainbow.
May your life be always bright
Dear children, as you grow,
Only troubles light as bubbles
May the bairnies know !

CHAPTER XXXVI.

SEWING.

Preliminary.—Fortunately for the children, fine specimens of needlework are not required from the pupils in the Kindergarten or Infant School, the elementary steps in sewing being all that is needed at this early stage. The teaching of this subject is greatly facilitated by the use of drill; first there is needle drill, which is begun with the baby-threaders.

Needle Drill.

One.—Hold the needle in the left hand.

Two.—Hold the cotton in the right hand.

Three.—Thread the needle.

Four.—Draw the thread through the needle.

Thimble Drill.

First let the children learn which is the *long* or *middle* finger of right hand. “We will call it the ‘thimble’ finger, because the thimble fits on the tip of it.”

One.—Hold up the “thimble” finger.

Two.—Hold thimble (by the top) between thumb and forefinger of *left* hand.

Three.—Put thimble on.

Four.—Show right hand. (Teacher looks at each hand to see if thimble is put on right finger.)

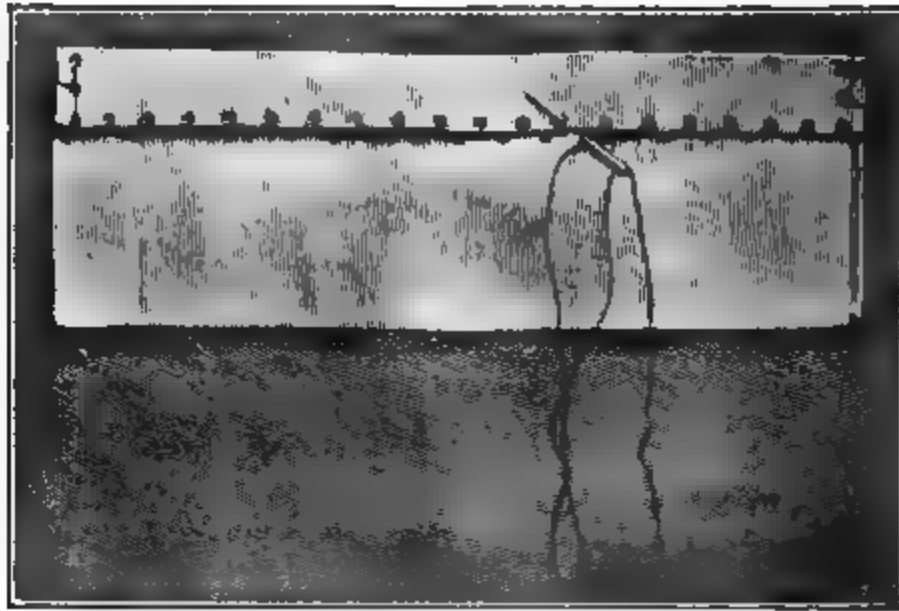


FIG. 129.

For teaching hemming, the Paragon Demonstration Specimen* shown in the illustration is a great help. It is made of glazed linen and has brass eyelet holes for the needle to pass through.

Conversation.—The lesson would, of course, be preceded by conversation. Teacher might say, "Look at the bottom of your pinafore. What do you see there?" "We see a hem." "Why do you have the hem?" "Because the pinafore would look untidy without it." (Show a piece of frayed calico.) "If you did not have the hem, the bottom of your pinafore would be like this. How untidy it would look, and how soon it would wear out! The pinafore is sewn in other places—up the sides, those are seams, round the neck, etc., but hemming is the first stitch to learn. All little girls should learn to hem, and sew, so that they will be able to keep their clothes tidy when they grow older.

* See Appendix 24.

“Let us see how the hem is made?” “It is made by turning the edge of the material over twice.” (Each child might have a slip of paper two inches by four with which to fold the hem on the desk.) “First we fold the edge down a little way.” Teacher shows how it is done with her specimen, which might be fastened on the blackboard, and the children then fold down one long edge of their paper. “Then we fold again (this time a little broader, to make the hem), and press the fold so that it will lie flat.” Before using the needle and cotton, the Teacher would talk about them—where the cotton comes from, what the needle is made of, etc. The Calico or Holland should also be made the subject of conversation.

1st Lesson.—In the first lesson the Demonstration Specimen is all that is needed, the Teacher first using it herself, and then allowing the children to come out and follow her example.

Sewing Drill.—If the sewing drill be used for this first lesson, it will be a preparation for later lessons, when the children work with their own specimens.

One.—Hold the needle in the right hand.

Two.—Take a stitch (this is shown on the specimen, Fig. 129).

Three.—Turn the sewing over to see if the needle shines through on the right side.

Four.—Push the needle with the thimble.

Five.—Take the point of the needle, and draw it out.

The Teacher may repeat the numbers of the “Drill,” and allow the children to give the movements indicated by the numbers, when they have learnt them. After the Teacher has taken several stitches, the children may come out and try individually.

They should become thoroughly familiar with hemming on the Demonstration Specimen before they have pieces of *their own*.

The children's material may be dotted, to show where the needle is to go in and come out. The eyelet holes in the specimen show where the marks should be placed on the calico; the dots on the hem should be red, and those below it black. The pieces should have about half an inch hemmed ready, and even then the Teacher will find that very few children succeed in taking the stitch correctly at first. Many attempts have to be made, and much patience is needed. The little hands grow damp and hot, needles break, cotton gets knotted, and sometimes fingers are pricked; but in spite of all this, the work may be accomplished satisfactorily, in the end, if the drill is perseveringly adhered to—it is a slow method but sure.

The children should show their work, that is, hold it up for the Teacher to see, when they have taken the stitch (*Two*). The difficulty is to get the stitches slanting on both sides of the material, this is why the dotted hem is recommended. If the stitch is correctly taken, the other exercises "*Three*" and "*Four*" are easily accomplished. It is a mistake to expect children to be able to sew after a few lessons; the drill should be given again and again, but a lesson of twenty minutes or half an hour is quite long enough. It is more important that the stitches should be correct, that is, slanting in the proper direction, on both sides, than that they should be very small. It is necessary at first to have the stitches large, so that the child may see her mistakes magnified.

Fine sewing is likely to injure the child's eyes, and six or eight stitches to the inch are quite sufficient for children of six or seven years.

Coloured cottons should be used, with needles, size 6 or 7, and coarse calico or holland.

As soon as the children hem nicely, their work should be put to some practical use. It is discouraging to a child to be continually hemming specimens, which are of no use, and ultimately find their way to the rag bag.

Pocket-handkerchiefs, tea-cloths and aprons may be made ; the latter have a narrow hem at the top, for the tape to pass through (which should be long enough to serve for strings), and a broader hem at the bottom.

CHAPTER XXXVII.

KNITTING.

THE teaching of knitting is easier than that of sewing if wooden knitting pins are used, and thick wool, such as fleecy or double Berlin. There should first be a conversation about the pins and wool, and also about all the articles that are made by knitting, of which stockings are the chief. Why are stockings made in this stitch? Because they will stretch. Enumerate all the different kinds of stockings—woollen, cotton, silk, men's, women's, children's, Babies', etc.

“How nice,” says the Teacher, “to be able to knit our own stockings, for they wear so much better than those which are woven in a machine!”

Knitting pin drill.—This may be taught first with the needles only.

Ready.—Hold the needles in position.

One.—Take a stitch, *i.e.*, put the point of right needle under the point of left.

Two.—Throw the wool over, *i.e.*, pretend to pass the wool round the point of the right hand needle, holding the needles in position with the left hand.

Three.—Bring the right needle to the top.

Four.—Slip the stitch off the left needle, *i.e.*, slip the right needle away from the left.

When this drill is thoroughly mastered, each child may have a piece of knitting with about twenty stitches cast

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Three.—Bring the right needle to the top.

Four.—Slip the stitch off the left needle, *i.e.*, slip the right needle away from the left.

When this drill is thoroughly mastered, each child may have a piece of knitting with about twenty stitches cast

on beforehand. The needle which holds the stitches is put in the left hand, and the empty needle in the right. "Now," says the Teacher, "we are going to do *real* knitting, still saying the numbers which we learnt with the knitting pins. The first stitch does not need to be knitted like the other stitches, but requires only *One*—'Take a stitch,' and *Four*—'Slip it off'. We commence to knit properly at the second stitch."

One.—Take a stitch.

Two.—Throw the wool over. Be careful to pass the wool round the end of the right hand needle; mind it does not slip off, for this is the stitch which has to be brought to the top at *Three*.

Three.—Bring the right needle to the top. (See that the new stitch is on it.)

Four.—Slip the stitch off the left needle. Children soon learn to take the stitch (*One*), and to throw over (*Two*), but "*Three*" is more difficult, and the Teacher will probably find it necessary to go round to each child, after "*Three*" has been called, and in many cases she will need to help them to bring the new stitch to the top.

As soon as the children can knit nicely they should be set to work on something useful. Scarfs, caps, muffs, and tea cosies can all be made with straight strips of knitting. The knitting of a strip which is not to be put to any particular use is dull and uninteresting.

Mrs. Hibbert's Knitting Frames make a pleasing variety. With these, children who can knit well may be set to make petticoats, scarfs, balls for the babies, and many other things.

CHAPTER XXXVIII.

SINGING.

KINDERGARTEN GAMES.

SINGING forms a very important part of a child's education. It is as natural for a child to express himself in song, as it is for a bird to sing, and frequent opportunity should be given for this exercise of the voice. Singing divides itself into several branches, Kindergarten games, Action songs, Marching songs, etc., which we will take in order.

Kindergarten Games.—If the invention of the Kindergarten game had been the sole outcome of Fröbel's work, he would not have lived in vain.

What a world of delight it opens up to the children ! and why ? Because children are *born* actors, and imitators, and the Kindergarten game affords full scope for the exercise of these faculties. Those who have witnessed the childish glee and "abandon" with which children give themselves up to the full enjoyment of playing a Kindergarten game, will testify that it is a touching sight, and one which has many a time brought tears to the eyes of the sympathetic beholder.

To get at the true essence and meaning of Fröbel's ideas on this subject, it is necessary to understand, in some measure at least, his *Mutter und Kose-Lieder*. It is not easily understood, for, unfortunately, Fröbel had not the faculty of expressing himself very clearly, and the translation into English has, perhaps, had the effect of making his meaning even less clear, but to any one who will

sincerely study the book, there cannot fail to be revealed a rich mine of deep, beautiful, and often sublime thought.

Fröbel's wife says :—

A superficial mind does not grasp it.

A coarse mind makes fun of it.

A thoughtful mind alone tries to get at it.

Perhaps some day we may have the *Mutter und Kose-Lieder* with more simplified songs and music, but nothing can add to its lofty continuity of thought and moral significance.

We must remember that, at this period, all the child's impressions come to him through his physical nature, and that it is, therefore, much more easy for him to understand when he represents, *e.g.* : Let the child be a little "farmer" sowing seeds, the action will convey to the child so clear an idea of the real sowing, that he will not be likely to forget it, and he will be quite prepared to recognise the real farmer at work at the first opportunity. In this way the powers of observation are cultivated and strengthened. The games also convey to the mind of the child clear ideas of the life and habits of animals. In the game of hens and chickens, *e.g.*, the children do not *pretend* to be chickens, the play to them is real, and, in imagination, they *are* little chickens, and nestle under the wings of the human mother-hen with the same confidence that the chickens have when they fly to their mother for protection. This, like the care of animals, cannot fail to develop love for dumb creatures; and it is certainly calculated to strengthen the bond of affection between the children themselves, and also to develop the child's spiritual being.

The Kindergarten Games then afford opportunity for development of the child's nature in many directions.

1. The learning of the words strengthens the memory.
2. Singing develops the voice.

3. The child learns to observe.
4. The physical nature is brought into action.
5. The moral nature is elevated.

It is needless to say that conversation should precede the introduction of a Kindergarten game. The children cannot enter into the spirit of the game unless they understand it, and the learning of the words may be accompanied by so much pleasant talk, that it is no task to the children.

Another essential is: that the Teacher should enter into the spirit of the game, and, like Fröbel himself, become for the time being "a child with the children". A Teacher who can do this will realise that the influence of the children has a wonderful effect, and that *we gain* from them perhaps more than we give.

The following quotation from *Children's Rights* illustrates this:—

"How well I remember, years ago, the first time I ever joined a Kindergarten game. I was beckoned to the charming circle, and not only one, but a dozen openings were made for me, and immediately, though I was a stranger, a little hand on either side of me was put into mine, with such friendly, trusting pressure that I felt quite at home. Then we began to sing of the spring-time, and I found myself a green tree waving its branches in the wind. I was frightened and self-conscious, but I did it, and nobody seemed to notice me; then I was a flower opening its petals in the sunshine, and presently a swallow gathering straw for nest building; then, carried away by the spirit of the Kindergarten and her children, I fluttered my clumsy apologies for wings, and forgetting self, flew about with all the others, as happy as a bird. Soon I found that I, the stranger, had been chosen for the 'mother swallow'. It was to me, the girl of eighteen, like mounting a throne and being crowned. Four cunning curly heads cuddled under my wings for protection and slumber, and I saw that I was expected to stoop and brood

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Another essential is: that the Teacher should enter into the spirit of the game, and, like Fröbel himself, become for the time being “a child with the children”. A Teacher who can do this will realise that the influence of the children has a wonderful effect, and that *we gain* from them perhaps more than we give.

The following quotation from *Children's Rights* illustrates this :—

“How well I remember, years ago, the first time I ever joined a Kindergarten game. I was beckoned to the charming circle, and not only one, but a dozen openings were made for me, and immediately, though I was a stranger, a little hand on either side of me was put into mine, with such friendly, trusting pressure that I felt quite at home. Then we began to sing of the spring-time, and I found myself a green tree waving its branches in the wind. I was frightened and self-conscious, but I did it, and nobody seemed to notice me; then I was a flower opening its petals in the sunshine, and presently a swallow gathering straw for nest building; then, carried away by the spirit of the Kindergartner and her children, I fluttered my clumsy apologies for wings, and forgetting self, flew about with all the others, as happy as a bird. Soon I found that I, the stranger, had been chosen for the ‘mother swallow’. It was to me, the girl of eighteen, like mounting a throne and being crowned. Four cunning curly heads cuddled under my wings for protection and slumber, and I saw that I was expected to stoop and brood

them, which I did, with a feeling of tenderness and responsibility that I had never experienced in my life before. Then, when I followed my baby swallows back to their seats, I saw that the play had broken down every barrier between us, and that they clustered about me as confidently as if we were old friends. I think I never before felt my own limitations so keenly, or desired so strongly to be fully worthy of a child's trust and love."

Perhaps the favourite Games are those in which animals are represented, but there are other Games that are equally interesting and instructive. Of these we may mention games of "Trades," and "Nature" Games such as "the Brook," and "the Trees".

The Games of Trades should be used to inculcate in the child a love for its fellow-creatures, and a sense of dependence upon others. The child should be shown that he is indebted to very many for the comforts he enjoys every day. "Who made the bread that we eat? Who ground the wheat into flour? Who sowed the seed? Then we must thank the Baker, the Miller, and the Farmer for this nice bread. But there is some one else; we must not forget the Miner, who goes down into the dark earth, to get the nice coal to make the oven hot, to bake the bread. His face and hands are black with working in the coal, but he cannot help that." The child thus learns that the "soiling" that comes of toil is honourable, and not to be despised; and when he has himself been a little "Joiner," or "Blacksmith," in the Games, this feeling will be strengthened.

Before playing a Kindergarten Game, the children generally form a ring, which, as Fröbel teaches, gives the idea of unity; and it is customary for a Ring song to precede the game.

RING SONG.

KEY E. (Three-pulse measure.)

{ : d . r | m : m : m . f | m : r : r . m | f : - . l : s . f | m : — : s . f }

1. Little children, all togeth-er, ¹ Join to make a merry ring, All so

{ | r : r : m . f | l : s : d . l | s : m : f . r | d : — |
hap - py, all so joy - ful, Stand in cir - cle as we sing. |

(Four-pulse measure.)

Chorus.

{ | d . m : s . l | s : m | d . m : s . l | s : — | d . l : s . m | l : s }

² Tra la la la la la Tra la la la la la Tra la la la la la

{ | s f : m . r | d : — ||

Tra la la la la.

2. ³ To the left we step so lightly,
On our toes we gently go,
⁴ Now to right our way we're wending,
Then we dance around, you know.

Chorus.

3. ⁵ Clap your hands, all, happy children,
⁶ Beat your knees—one, two, three, four,
⁷ See the children all are bowing,
⁸ Join hands, now, and dance once more.

Chorus.

Actions.—¹ Join hands. ² Dance round to music. ³ Step to left (keeping time to music). ⁴ Step to right. ⁵ Clap hands. ⁶ Beat knees. ⁷ Hands on sides; all bow. ⁸ Join hands, ready to dance round when chorus commences.

THE JUNGLE.

Instructions.—The frontispiece illustrates this game. In the foreground a “farm-yard” is seen, the walls being made by the children, who stand with hands joined. In the centre of the “farm-yard” is a group of “chickens,” and the “cock” stands near, with wings outspread. To the left and right are small groups of “ducks” and “geese” respectively. In the background, the children stand waving branches of trees, to represent the “jungle,” where the animals, mentioned in verse one, live. Between the “farm-yard” and the “jungle” is a “road,” the two sides of which are made by children kneeling; and at the end of the road is seen the “den” of the “wolf”. To make this, the children stand facing each other, and hold their branches so that they meet above. The “wolf” is seen coming out of his den, with the little cubs behind. The “lion” and “tiger” are represented by boys stooping, these are seen near the hunters, who stand on the left side of the “jungle,” gun in hand, with their “horses” near them. The biggest and strongest boys should be chosen for horses, and very little boys should ride them.

1st Verse.—In the *first* verse the “wolf” keeps in his den. During the singing of the chorus, the hunters mount their horses, and ride through the jungle and back again, and then dismount (the horses will get tired if the riders remain mounted for any length of time).

2nd Verse.—In the *second* verse the “wolf” comes out of his den, and goes to the farm-yard. As soon as he appears, the ducks, chickens, etc., run away quacking and clucking. When the chorus begins the riders come round the farm-yard to see what is the matter, but by this time the “wolf” is away to his “den”.

3rd Verse.—In the *third* verse the “wolf” comes out again and prowls about the jungle, and during the singing of the chorus, after this verse, the hunters catch him.

GAME.—THE JUNGLE.

KEY G. (Two-pulse measure.)

{ .m,r | d .d : d .d | s₁ .s₁ : s₁ .s₁ | m .m : m .m }
 1. In this dark forest we shall find Some creatures, great and

{ | r : - .s₁ | d .d : r .r | m .m : f .r | d .d : t₁ .t₁ }
 small, The lion, tiger, savage wolf, And el-e-phant so

Chorus.
 { | d : - || .m,r | d .d : d .d | s₁ .s₁ : s₁ .s₁ | m .m : m .m }
 tall. So mount your beasts, my trusty men, And come along with

{ | r : - .s₁ | d .d : r .r | m .m : f .r | d .d : t₁ .r }
 me, For off a - hunting we will go, As merry as can

{ | d : - . ||
 be.

2. Last night the wolf came prowling round,
 On mischief he was bent,
 And for to find a nice fat goose,
 He to the farm-yard went.

Chorus.

3. Now, Mr. Wolf, we're after you,
 And if your den we find,
 You'll have to come with us, my dear,
 And leave your cubs behind.

Chorus.

KEY F.

GAME.—HEN AND CHICKENS.

{ : s, | s. : d : d | d : r : m | m : r : r | r : — : s }

1. The fowls are roost - ing snug and warm, Un -

{ | m : — : m | r : d : r | d : — : s, | s, : d : d }

til the day shall dawn, With moth - er

{ | d : r : m | m : r : r | r : — : s | m : — : m }

they are safe from harm, All sleep - ing

(Four-pulse measure.)

{ | r : d : r | d : — | : m | s : f | m : r | d : r | m : m }

till the morn. But when the sun peeps o'er the hill, The

{ | s : f | m : r | d : r | m : — | s . s : s . s | s : m }

cock crows loud, "What, sleeping still! Cock-a-doodle-do!

{ | f : r | d ||

Wake, I say."

2. Then all the chicks come flying out,
To follow mother's lead,
Now here, now there they run about,
Till Molly comes to feed.
She scatters for them all nice food,
The cock cries out, "'Tis very good,
Cock-a-doodle-doo! Very good!"

3. Ah! here's the rain! each tiny chick
Runs straight to mother dear,
While bigger chickens seek the barn,
And shelter safe from fear.
The little ones 'neath mother's breast
Are snug and warm, and safely rest,
Cock-a-doodle-doo! Safely rest.

4. Just as the hen bird shields her young,
The tender, pretty things ;
So God protects and shelters you,
Dear children, 'neath His wings.
The rain is o'er, so come away,
And pick up food, and run and play,
Cock-a-doodle-doo ! Run and play.

Instructions.—A “ farm-yard ” is needed where the “ hen ” and “ chickens ” may run about ; a big girl is chosen for the mother-hen, and smaller children represent the chickens. Another girl is required for “ Molly,” and a boy for the “ cock ”. The farm-yard is made as in the Jungle game, but at one end of it there should be a barn, formed by a ring of children, and at the other a little hen-house, made in the same way.

1st Verse.—In the first verse the fowls are sleeping in the hen-house, but at the call of the cock, “ Wake, I say,” they come out.

2nd Verse.—In verse two they run about, looking for food, until the little girl comes to feed them. Then they pretend to pick up the food, which she scatters from her basket.

3rd Verse.—In the third verse the little chickens (of which there should be about six), run to the mother (a bigger girl), who covers them with her wings (arms), and the rest seek the barn. The chickens remain in this position, until verse four, when they run out at the words, “ The rain is o'er ”.

CHAPTER XXXIX.

ACTION SONGS.

ACTION songs are a good preparation for drill, as they teach the children to move all in time. It is well to remember that more strength is required to sing and drill at the same time than to practise either of these exercises singly. The movements, therefore, should not be violent, and not many action songs should be sung consecutively. It is a very pretty sight to see an action song performed by a school full of children, when the little hands and feet all keep time to the music. A couple of action songs are given as examples.

KEY E.

ACTION SONG.

{ | m : d ., m | f : r ., f | m : d ., m | r . t : s | }

1. Move ⁽¹⁾ all ⁽²⁾ your ⁽¹⁾ fing - ⁽²⁾ ers, your fing - ers, your fing - ers,

{ | m : d ., m | f : r . f | m ., d : r ., t | d : — | }

Stretch them, and bend them, just as I do with mine,

{ | m ., s : s ., d | l : s ., f | m ., d : m | r . t : s | }

⁽³⁾ Then we ⁽⁴⁾ move the ⁽³⁾ wrist ⁽⁴⁾ joint, the ⁽³⁾ wrist ⁽⁴⁾ joint, the ⁽³⁾ wrist ⁽⁴⁾ joint,

{ | m ., s : s ., d | l : s . f | m ., d : r ., t | d : — | }

⁽⁵⁾ Now it ⁽⁶⁾ is the ⁽⁵⁾ el - ⁽⁶⁾ bow, with ⁽⁵⁾ arms ⁽⁶⁾ all in ⁽⁵⁾ a ⁽⁶⁾ line.

Chorus.

{ | m : d ., m | f : r ., f | m : d ., m | r . t : s | }

⁽⁷⁾ Clap, clap to - ⁽⁸⁾ geth - er, and ⁽⁸⁾ twist all in this way,

{ | m : d ., m | f : r ., f | m ., d : r ., t | d : — || }

⁽⁹⁾ Beat, then, just four ⁽¹⁰⁾ times, and cross on chest, I say.

(1) Close hands. (2) Open. Continue these two movements to end of second line. (3) Drop hands from wrists. (4) Raise hands. (5) Hands out, elbows being kept close to sides. (6) Hands brought back to shoulders. (7) Clap four times. (8) Twist four times. (9) Beat knees. (10) Cross hands, and tap chest with tips of fingers.

(11) (11) (11) (11)
2. Shrug all your shoulders, your shoulders, your shoulders,
(12) (13)
Then stretch your hands up, as high as they can go,
(14) (15)
Now to right and left stretch together, together,
(16) (17)
Next from sides to shoulders the hands move briskly, so.
Chorus:—Clap, clap, etc.

(18) (19) (20) (21) (18) (19) (20) (21)
3. All point your toes out, to left, and to right, see,
(22) (23)
Up spring on tip-toe, as far as far can be,
(24) (25)
Bend your knees so gently, so slowly, and carefully,
(26) (27)
Close your toes, and open, and keep in time with me.
Chorus:—Clap, clap, etc.

(28) (29)
4. Point to the Northward, point to the Southward,
(30) (31)
Then point to Eastward, and next we turn to West,
(32) (33) (32) (33) (34) (33) (34) (33)
Stretch your neck to left, and to right, as you stand all,
(35) (36) (36) (37)
Backward, forward, stretch, then just drop your chin on chest.
Chorus:—Clap, clap, etc.

(11) Move the shoulders four times, once at each place indicated.
(12) Hands up. (13) Hands down (continue to end of line). (14) Hands out to right and left. (15) Hands on shoulders (continue to end of line).
(16) Hands down. (17) Hands on shoulders (continue to end of line).
(18) Hands on sides, left foot out. (19) Feet together. (20) Right foot out. (21) Feet together. (22) Spring up on toes. (23) Heels on floor (continue to end of line). (24) All bend. (25) Stand up (continue to end of line). (26) Toes together. (27) Toes apart, heels being kept close together (continue to end of line). (28) Turn to North, and point. (29) Turn to South, and point. (30) Turn to East, and point. (31) Turn to West, and point. (32) Incline head to left. (33) Hold head erect. (34) Incline head to right. (35) Stretch head backwards. (36) Incline head forward. (37) Remain in this position to end of line.

The following song is suitable for very young children:—

KEY F.

KITTY.

{ : m . f | s : m : m | m : r : r . m | f : r : r . l }

1. Ah, ¹Kit - ty, I see you Lap, lap - ping your

{ | s : — : m . f | s : m : m | m : r : r . m | f : t : t | d : — ||

milk, I'll ²stroke your fur gently, 'Tis soft as fine silk.

2. You ³sit on the hearth-rug,
And ⁴fold up your paws,
They ⁵feel soft as velvet,
But ⁶where are your claws?

3. ⁷Come, puss, show your ⁸whiskers,
Your ⁹eyes large and bright;
And then you shall ¹⁰jump, for
That is quite a sight.

¹ Hold up forefinger of right hand. ² Stroke left arm with right hand. ³ Point downwards. ⁴ Fold right hand over left. ⁵ Grasp dress with both hands. ⁶ Hold up the forefinger of right hand. ⁷ Beckon. ⁸ Touch each side of face. ⁹ Touch eyes. ¹⁰ Spring up on toes.

CHAPTER XL.

MARCHING.

IN most schools, the children march for five or ten minutes before taking their places for the opening exercises. Marching is much enjoyed by the children, and it is also of great value, for it gives the Teacher opportunity to notice how the child walks, and to correct errors. It also teaches how to step in time. The head should be held erect, the shoulders well back, and the arms straight down at the sides, or the hands may be folded behind. The children should step lightly, they should never be allowed to stamp the feet, and they should learn to put down the left foot at the heavy beat of the music. Singing often accompanies marching (four time should always be used), and a few marching songs are here given. The verses referring to the four seasons are intended to be sung during those seasons, *i.e.*, the verses about Spring should be sung in the Spring-time, those about Summer in the Summer-time, and so on.

MARCHING SONGS.—1. SPRING.

KEY E. (Four time.)

{ : s | s : m | d' : l | s : - . f | m : m | r : s | fe : l }

1. The sweet spring-time is here once more, With flow'rs so bright and

{ | s : — | — : s | l.t : d'.l | s : m | l.t : d'.l | s : m }

gay,

The trees are dressed in pret - ty green, The

{ | r : l | s : t | d' : — | — ||

cuck - oo sings all day.

2. I see the tiny chicks and ducks,

And lambs that frisk in glee ;

The world seems full of life and joy,

I'm glad as glad can be.

2. SUMMER.

(See tune of Spring.)

1. The gladsome Spring has passed and gone,
And Summer now we greet,
The air is filled with scent of rose,
And honeysuckle sweet.
2. Ah! now we hear the mowers' scythes,
And smell the new-mown hay,
The bee sucks honey; butterflies
Flit gaily all the day.

KEY E \flat .

3. AUTUMN.

{ m.r : m.f | s : m | d' : l | s : — | s.m : f.l | s : m }

1. Rust-ling leaves of gold and brown, These are Autumn's

{ r : l | s : — | d' : d' | d' : s | l : l | s : — }

pret - ty gown; Ap - ples, pears, and pur - ple plums,

{ l.d' : t.l | s : m | r : s | d : — ||

All are ripe when Autumn comes.

2. Hips and haws, nuts, blackberries,
All are hanging on the trees.
To the woods away, away,
Gathering nuts is merry play.

4. WINTER.

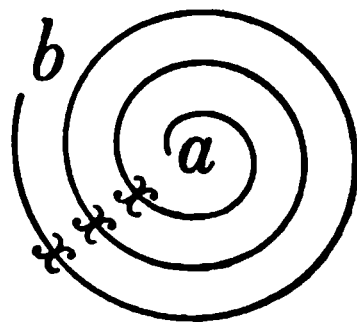
(See tune of Autumn.)

1. Winter, you have come at last,
Icy cold and biting blast,
These will follow in your train,
Frost and snow will come again.
2. All the trees are black and bare,
Robin looks for food with care.
Sliding, skating, oh what fun!
Now the winter has begun.

Sometimes the children may be allowed to march in twos, dividing when they reach the end of the room, and marching singly to the other end, then rejoining partners, as in Gun Drill, First Movement.

Circle marching is very good for teaching how to step to the music. The children form a ring, and then turn, so that all the left feet are inside the ring. If the Teacher stands in the centre of the ring, she can easily see when any child gets out of step, and the children themselves being able to see each other's feet will more readily perceive when they make a mistake.

The following marching song is much enjoyed by the children. First a ring is formed, then it is broken at *b*, and the children march round and round, until point *a* is reached. Now the children at the places marked *x* raise their hands to make the "archway," and the child who is leading, and who now stands at *a*, comes out, and the rest follow. It is very important that the hands be kept joined all the time.



KEY G.

{	<u>d</u> : <u>r</u> : <u>m</u> : <u>f</u>	s : s	l : l	s : —	f : f	m : m }
1.	Come, you children,	glad and free,	Come and march a -			
{	r : r	d : —	s : s	f : f	m : m	r : — }
	round with me,	Soon we'll make a	nice, round ball,			
{	s : s	f : f	m : m	r : —	<u>d</u> : <u>r</u> : <u>m</u> : <u>f</u>	s : s }
	Winding, winding,	children all.	Trot and march a -			
{	l : l	s : —	f : f	m : m	r : r	d : —
	way, a - way,	All so hap - py,	and so gay.			

2. Make an archway, children dear,
 From the centre march out here,
 Soon the ball will be unwound,
 Marching gently, round and round;
 Trot and march, away, away,
 All so happy, and so gay.

CHAPTER XLI.

TONIC SOL-FA.

THE REV. J. CURWEN conferred a great benefit on children when he invented the Tonic Sol-fa method of teaching singing. It is so easy and simple that children of five or six years of age may begin to learn it without difficulty.

Singing, whether from note or words, should always be sweet, never "throaty" or loud.

A piano helps to keep the right pitch, but often there are numbers of children who have no notion of tune, and these cause the singing to be flat.

It is a good plan to suppress these discordant voices, and to allow such children to sit near those who sing perfectly in tune, and listen carefully. This has sometimes had the effect of producing tuneful singing from children, who, previously, sang quite out of tune.

An excellent method of securing melodious singing is to allow the children to run up and down the scale, and sing the notes of the Doh chord (d., m., s., d.) with the hand signs before beginning to sing their songs or even the morning hymn. In teaching Tonic Sol-fa, the hand signs come first, then follow the names of the notes on the **Modulator**. The Kindergarten Modulator* is the simplest and best.

When the names of the notes have been learnt, the sounds may be given; first in rotation, that is, up and down the scale, and then the notes of the Doh chord taken in

* See Appendix 25.

order, d., m., s., d., and afterwards varied. It is well to call attention to the different sounds of the notes—“doh” is a strong sound, “me” is not so strong, “lah” is mournful, and so on. Modulator practice should be given at least once a week, and the children should be thoroughly proficient in this practice before notes are written in a line on the blackboard.

CHAPTER XLII.

NOTES ON DRILL.

THE object of Drill is to develop the children's bodies, so as to make them strong, lithe, and graceful, and also to gratify the child's natural desire for pleasurable movement. In this, as in every exercise, the first question to be asked is, "What is *good* for the children?" Then, but not till then, may be considered what has a pretty effect. The Teacher of drill needs to be energetic, else the children move the arms slowly, and get out of time. It is a good plan to encourage the scholars, by letting one who does it nicely be the "Captain," and lead, while the others are little "soldiers" following the Captain's movements. Drill songs are a good preparation, take, *e.g.*, the one given on p. 284. The drill lesson should never be a long one, and the exercises should not be too violent. It is well to remember that we are dealing with undeveloped limbs, and that the tender muscles of a little child should be used mercifully. The writer has known a little girl to come home from school so exhausted with dancing and drilling, that she was glad to lie down. In this instance the *good* of the child had not been the first thought in the Teacher's mind, or the little one would not have been overworked. If this thought were kept prominent it would enable one to have more patience with the many who get out of time. All children have not the same ear for music, and what is perfectly easy to one is exceedingly difficult to another. A college student has been known to find it almost impossible to keep time in

simple drill exercises, even after long and careful training, so it is no wonder if some of the children find it difficult. Some kind of Drill should be taught to all the children, though for the younger ones the Kindergarten Games provide sufficient movement. Where "drill" is given to these no apparatus is needed, and if any is used, it should be of the very lightest description. Musical Bells are the most appropriate. The exercises should always be taught in sixteens, so that eight bars of music may complete each exercise, except in waltz music, when sixteen bars will be needed.

In beginning drill with very little ones, let it be introduced by a story: "There was once a little boy who went with his Mother in the train to see his Grandmamma. How does the train go?" (Imitate the motion of the wheels with the arms, and let the children do it sixteen times.) "His Grandmamma lived in the country. What would they see? The little boy saw some birds flying. Let us make little birds fly." (Join tips of fingers *overhead* and then wave hands outwards. This also sixteen times.) "Next they came to a blacksmith's shop, and stood by the door to watch the blacksmith swing his heavy hammer." (Make a hammer with fist of right hand, and strike open palm of left sixteen times. Then the left hand should be the hammer, and strike the right hand another sixteen.) "In a field they saw a little boy, who made a noise to scare the birds away, lest they should eat the seed which the farmer had just sown." (Let the children imitate sowing of seed, first with right, and then with left hand, each sixteen times.) This story may be continued at the Teacher's discretion, and, in time, the exercises may be done to music, or, where there is no piano, half the children should sing or hum the tune while the others do the exercises. To drill and sing at the same time is much too hard.

At first the children should drill to numbers, simply

counting to sixteen for every exercise. The little ones should sometimes be allowed to watch the older ones drill, then they will learn more readily when they have to do it themselves.

DRILL.

General Instructions.—It will be found that each drill is divided into *Exercises*, and that these *Exercises* are again divided each into four parts, called *Movements*. To each one of the movements sixteen is counted. The following tune shows the manner of counting:—

KEY E.

{		m	:	d	.,	m		f	:	r	.,	f		m	:	d	.,	m		r	.,	t	:	s			m	:	d	.,	m	}
		One,		two,		three,		four,		five,		six,		seven,		eight,		nine,		ten,		e -										

{		f	:	r	.,	f		m	.,	d	:	r	.,	t		d	:	—		—	:	—	
		leven,		twelve,		thirteen,		fourteen,		fifteen,		sixteen.											

In the above we count *two* to each bar, so that eight bars are sufficient for one movement; but where waltz music is used, sixteen bars will be needed for each Movement, as we only count *one* to each bar in waltz time. Where *slow time* is indicated, waltz music is best. The position in which the child should stand for each Movement is given after the word “Ready,” which may or may not be repeated by the Teacher at her discretion. It is advisable, however, to use the word in the earlier drill lessons, but as children become more proficient the different Movements may follow each other with only a slight pause between, or a chord may be struck on the piano for the “Ready” of each Movement. The children should *rest* between each *Exercise* for a short space of time.

It is necessary to put as much distance as possible between each child. The children should be placed so that they cannot touch each other.

CHAPTER XLIII.

MUSICAL BELLS.*

(See General Instructions, p. 294.)

THESE consist of a light bar of wood, about six inches long, with a bell fastened at each end. They are suitable for the very youngest children; the bar is easily held, it helps to keep the little hands in position, and the child likes to hear the tinkle of the bells. If the bars are painted or enamelled in pretty colours this drill will give still greater pleasure.



FIG. 130.

FIG. 131.

EXERCISE I.

1st Movement.—*Ready.* Hold bars vertically as shown in Fig. 130.

One. Hands straight out. Fig. 131.

Two. Hands drawn back. Fig. 130.

* See Appendix 26.

(Continue these two movements until sixteen has been counted.)

2nd Movement.—*Ready.* Bars held vertically. Fig. 130.

One. Hands straight up

Two. Bring back to position. Fig 130.

(Continue these two movements until sixteen has been counted.)

3rd Movement.—*Ready.* Hands on shoulders.

One. Hands out to right and left

Two. Hands on shoulders

(Continue these two movements until sixteen has been counted.)



FIG. 132.

FIG. 133.

4th Movement.—*Ready.* Hands under arms. Fig. 132.

One. Hands straight down. Fig. 133.

Two. Hands under arms. Fig. 132.

(Continue these two movements until sixteen has been counted.)



FIG. 134.

FIG. 135.

EXERCISE II.

1st Movement (for exercising muscles of the neck. Slow time).—*Ready.* Hands on sides. Fig. 134.

(Keep the hands in this position during the next *two* movements.)

One. Look to left. Fig. 135.

Two. Look straight in front.

Three. Look to right.

Four. Look straight in front.

(Continue these four movements until sixteen has been counted in *slow* time.)

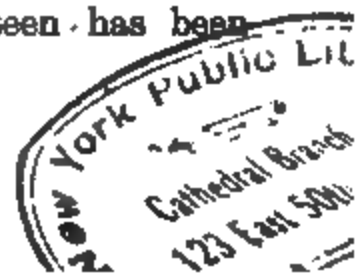
2nd Movement (continues neck exercises. Slow time).—*Ready.* Hands on sides. Fig. 134.

One. Drop head on chest.

Two. Head as far back as possible.

(Continue these two movements until sixteen has been counted.)

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3rd Movement.—*Ready.* Bars held as in Fig. 130.

One. Hands straight up

Two. Hands on heads.

Three. Hands on shoulders

Four. Hands down by sides

(Continue these four movements until sixteen has been counted.)

4th Movement (slow time).—*Ready.* Bars held as in Fig. 130.

One. Hands together on chest.

Two. Spring up on toes, throw hands outwards, and bring to sides.

(Continue these two movements until sixteen has been counted slowly.)



FIG. 136.

FIG. 137.

EXERCISE III.—WRIST EXERCISES.

1st Movement.—*Ready.* Hands out to right and left
Fig. 136.

One. Hands turned round to position shown by Fig. 137.

Two. Hands turned back to position shown in Fig. 136.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*Ready.* Hands straight out in front.

(Continue the wrist exercises with hands in this position, until sixteen is counted.)

3rd Movement.—*Ready.* Hands held straight up.

(Wrist exercise continued, with hands in this position, until sixteen is counted.)

4th Movement.—*Ready.* Hands down.

(Wrist exercise with hands in this position until sixteen is counted.)

EXERCISE IV.

1st Movement (slow time).—*Ready.* Hands on sides as in Fig. 134.

One. Left foot out at an angle of 45°.

Two. Bring foot back to position, and spring up on toes.

Three. Right foot out at angle of 45°.

Four. Bring foot to position, and spring up on toes.

(Continue these four movements until sixteen is counted.)

2nd Movement (in slow time).—*Ready.* Hands on sides as in Fig. 134.

One. Bend the knees.

Two. Stand upright.

(Continue these two movements until sixteen is counted.)



FIG. 138

FIG. 139.

3rd Movement.—*Ready.* Body bent forward.

One. Thrust left hand downward as if kneading. **Fig. 138**

Two. Thrust right hand downward. **Fig. 139.**

(Continue these two movements until sixteen is counted.)

4th Movement.—*Ready.* Hands on sides as in **Fig. 134**

One. Toes together.

Two. Toes apart.

(Continue these two movements until sixteen is counted keeping heels together all the time.)

CHAPTER XLIV

DUMB BELLS.*

(See General Instructions, p. 294.)

THESE are made in Iron or Wood ; the latter are best adapted for young children. For children of six years of age they should not be more than six or eight ounces in weight. This apparatus is more suitable for boys than girls, and is excellent for promoting muscular development.



FIG. 140.

FIG. 141.

EXERCISE I

1st Movement (slow time).—*Ready.* Hands in position shown by Fig. 140.

* See Appendix 27.

One. Hands straight out in front, dumb bells touching each other in a horizontal position.

Two. Bells touching over head.

Three. Hands out to right and left in a line with shoulders

Four. Hands by sides.

(Continue these four movements until sixteen is counted.)

2nd Movement. *Ready.* Hands in position shown by Fig. 140.

One. Hands out in front with bells apart. Fig. 141.

Two. Strike bells together gently.

Three. Turn to left with bells out, and apart, as in Fig. 141.

Four. Strike bells together gently.

Five. Hands out in front with bells apart.

Six. Strike bells together.

Seven. Turn to right with hands out and bells apart.

Eight. Strike bells together.

(Repeat these eight movements so as to complete sixteen.)



FIG. 142.

FIG. 143.

3rd Movement.—*One.* Swing bells to left. Fig. 142.

Two. Bring bells to position shown by Fig. 143, still turning to left; feet may be turned to the left also.

Three. Swing bells to right.

Four. Bring bells to position, still turning to right.

(Continue these four movements until sixteen is counted.)



FIG. 144.

FIG. 145.

4th Movement.—*One.* Swing arms to left, keeping the left hand uppermost and both dumb bells in a vertical position. Fig. 144.

Two. Keep the left hand still, and strike upwards with the right, looking up at the same time. Fig. 145.

Three. Swing to right, keeping right hand uppermost, and dumb bells in a vertical position.

Four. Strike upwards with left hand.

(Continue these four movements until sixteen is counted.)

EXERCISE II.

1st Movement.—*Ready.* Hands in position shown by Fig. 140.

One. Hands straight up.

Two. Position. Fig. 140.

Three. Hands out in front.

Four. Position. Fig. 140.

Five. Left hand out in front, holding dumb bell in upright position.

Six. Strike left dumb bell with right.

Seven. Right hand out in front, left brought back to position.

Eight. Strike right dumb bell with left.

(Continue these eight movements until sixteen is counted.)

2nd Movement.—*Ready.* Hands on shoulders.

One. Left hand on left shoulder, while right hand is straight out to the right.

Two. Right hand on right shoulder, while left hand is straight out.

(Continue these two movements until sixteen is counted.)

3rd Movement (to the tune of "The Campbells are Coming").—*Ready.* Hands in position shown by Fig. 140.

One. Strike together out in front.

Two. Strike together over head.

Three. Strike in front again.

Four. Strike behind twice quickly at "and four" in the music. The tune should be played in quick time. In this measure there are three pulses to each beat, and we count *one* to every beat.

KEY C. (Six-pulse measure.)

{ : d | m : s : l | s : m : d | m : — : m | m : — : d }
One, two, three, and four,

{ | m : s : l | s : m : d | r : — : r | r : — : d }
five, six, seven, and eight,

{ | m : s : l | s : m : d | s : - . l : s | d' : - . r' : m' }
nine, ten, eleven, and twelve,

{ | d' : l : d' | s : m : d | m : — : m | m : — ||
thirteen, fourteen, fifteen, and sixteen.

(Continue these four movements until sixteen is counted.)



FIG. 146

FIG. 147.



FIG. 149.

EXERCISE IV.

• **1st Movement** (boys only).—*Ready.* Fig. 140.

One. Hands up.

Two. Position. Fig. 140.

Three. Raise the left leg and strike under left knee. Fig. 146.

Four. Position. Fig. 140.

Five. Hands up.

Six. Position. Fig. 140.

Seven. Raise right leg, and strike under right knee.

Eight. Position. Fig. 140.

(Repeat these eight movements so as to complete sixteen.)

2nd Movement (boys only ; slow time).—*Ready.* Fig. 140, with feet apart.

One. Bells together high above the head. Fig. 147.

Two. Swing downwards. Fig. 148.

(Continue these two movements until sixteen is counted.)

3rd Movement (slow time).—*Ready.* Hands on shoulders.

One. Right hand straight out to right, and left hand to left.

Two. Right hand down while left hand is up. Fig. 149.

Three. Hands straight out to right and left.

Four. Left hand down while right hand is up.

(Continue these four movements until sixteen is counted.)

4th Movement.—March out with bells in position. Fig. 140.

CHAPTER XLV.

HOOP DRILL.

(See General Instructions, p. 294.)

THE hoops shown here are made of wood, and measure eighteen inches in diameter. For cost, etc.* They can be obtained with bells attached, and may be wrapped with coloured muslin to match the children's sashes for entertainments, or they might be painted to match sashes, etc.



FIG. 150.

FIG. 151.

EXERCISE I.

1st Movement.—*Ready.* Hoop in position shown by Fig. 150.

* See Appendix 28.

One. Touch floor with hoop.

Two. Position. Fig. 150.

Three. Hoop out. Fig. 151.

Four. Position. Fig. 150.

(Continue these four movements until sixteen is counted.)

Hoop to be held vertically in above exercise.



FIG. 152.

FIG. 153.

2nd Movement.—*Ready.* Hoop over head. Fig. 153.

One. Hoop on neck. Fig. 152.

Two. Hoop over head. Fig. 153.

(Continue these two movements until sixteen is counted.)

3rd Movement (slow time).—*Ready.* Hoop in position shown by Fig. 150.

One. Hoop held over head as in Fig. 153.

Two. Drop hoop on shoulders. Fig. 152.

Three. Place hands on sides.

Four. Bow.

(Continue these four movements until sixteen is counted.)



FIG. 154.

FIG. 155.

4th Movement (slow time).—*Ready.* Hold hoop with hands close together.

One. Hoop down. Fig. 154.

Two. Swing hoop over head until hands are behind neck. Fig. 155.

(Continue these two movements until sixteen is counted.)



FIG. 156.

EXERCISE II. (with partners).

1st Movement.—*Ready.* See Fig. 161, Ring Drill.

One. Left arms out.

Two. Right arms out. Fig. 156.

(Continue these two movements until sixteen has been counted.)



FIG. 157.

2nd Movement.—*Ready.* See Fig. 161, Ring Drill.

One. Hoops to A's shoulders. Fig. 157.

Two. Hoops to B's shoulders.

(Continue these two movements until sixteen is counted.)



FIG. 158.

3rd Movement (slow time.)—*Ready.* See Fig. 161, Ring Drill.

One. Meet hoops over head. Fig. 158.

Two. Meet hoops below horizontally, bending the body as in Fig. 175, Wand Drill.

(Continue these two movements until sixteen is counted.)

4th Movement.—*Ready.* Fig. 161, Ring Drill.

One. Send feet out and look under hoop. See Fig. 162, Ring Drill.

Two. Position. Fig. 161, Ring Drill.

Three. Send feet out in opposite direction, and look under hoop.

Four. Position. Fig. 161, Ring Drill.

(Continue these four movements until sixteen is counted.)



FIG. 159.

EXERCISE III. (with hoops joined in rows ; Fig. 159).

1st Movement.—*Ready.* Fig. 159.

One. Send hoops up and spring on toes.

Two. Position. Fig. 159.

Three. Touch floor with hoops held vertically.

Four. Position. Fig. 159.

(Continue these four movements until sixteen is counted.)

2nd Movement.—*Ready.* Fig. 159.

One. Bend the body, turning hoops over into a horizontal position at the same time.

Two. Position as in Fig. 159.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*Ready.* Fig. 159.

One. Hoops out and left foot out at same time. Fig. 230, Tambourine Drill.

Two. Position as in Fig. 159.

Three. Hoops out, and right foot out at same time.

Four. Position. Fig. 159.

(Continue these four movements until sixteen is counted.)

4th Movement.—*Ready.* Fig. 159.

One. Step to left.

Two. Feet together, spring up on toes.

Three. Step to right.

Four. Feet together and spring up on toes.

(Continue these four movements until sixteen is counted.)

The following lines might be sung before Exercise III. :—

See the children ready stand,
All in rows with hoop in hand,
When we drill, the hoops will go
Up and down, or to and fro.

Now we're springing up on toes,
To the floor, next, each hoop goes,
Step to left, or step to right,
Moving all with footsteps light.

EXERCISE IV. (in fours).

1st Movement.—*Ready.* Four girls form a ring. Each girl holds her own hoop with left hand, and her neighbour's with right.

One. Send hoops up.

Two. Position as in "Ready".

Three. Swing hoops down horizontally.

Four. Position as in "Ready".

(Continue these four movements until sixteen is counted.)



FIG. 160.

2nd Movement.—*One.* Step to centre and send hoops up. Fig. 160.

Two. Position as in "Ready" of first movement. (Continue these two movements until sixteen is counted.)

3rd Movement.—*One.* Step to left.

Two. Feet together and spring up on toes.

Three. Step to left again and continue this until *Eight* has been counted.

Nine. Step to right.

Ten. Spring up on toes.

(Continue until sixteen is counted.)

4th Movement.—*Ready.* Place the four hoops on the top of each other. Left hands on hoops, right hand on hip. Walk round until eight has been counted. At *Nine*, turn round, place right hands on hoops, and left on hip, and walk round until sixteen is counted.

CHAPTER XLVI.

RING DRILL.

(See General Instructions, p. 294.)

THE rings are made of wood, and measure three and a half inches in diameter. For cost, etc.* This apparatus has the advantage of being very durable. If the children stand in rows for the Ring Drill, the last child in each row walks along with arm outstretched to collect the rings, and if the children hold their rings straight out, she can slip her arm through all the rings in the row and collect them, in less time than it takes to describe. The rings are slipped from the arm on to a length of window cord, which is then tied and hung up.

EXERCISE I.

1st Movement.—*Ready.* Ring held with both hands. See Fig. 150, Hoop Drill.

One. Rings straight out in front. Fig. 151, Hoop Drill.

Two. Position as in "Ready".

(Continue these two movements until sixteen is counted.)

2nd Movement.—*Ready.* Fig. 150, Hoop Drill.

One. Rings up.

Two. Position as in "Ready".

(Continue these two movements until sixteen is counted.)

3rd Movement.—*Ready.* Hands close together on ring.

One. Ring on knees. Fig. 154, Hoop Drill.

Two. Ring on chest.

* See Appendix 29.

4th Movement.—*Ready.* Fig. 150, Hoop Drill.*One.* Rings out.*Two.* Position as in “Ready”.*Three.* Rings up.*Four.* Position as in “Ready”.*Five.* Rings on knees.*Six.* Position as in “Ready”.*Seven.* Rings on knees.*Eight.* Position as in “Ready”.

(Repeat these movements so as to complete sixteen.)

EXERCISE II. (in rows, rings joined ; Fig. 159, Hoop Drill).

1st Movement.—*One.* Spring up on toes, sending rings up.*Two.* Heels on floor, and swing rings back.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*One.* Bend knees, keeping rings in a vertical position.*Two.* Stand as in Fig. 159, Hoop Drill.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*One.* Send rings out and left foot out at the same time.*Two.* Feet together. Spring up on toes.*Three.* Send rings out and right foot out at the same time.*Four.* Feet together. Spring up on toes.

(Continue these four movements until sixteen is counted.)

4th Movement.—*One.* All step to left.*Two.* Spring up on toes with feet together.*Three.* All step to right.*Four.* Spring up on toes with feet together.

(Continue these four movements until sixteen is counted.)



FIG. 161.

EXERCISE III. (partners stand facing each other ; Fig. 161).

1st Movement.—*One.* Send out left arms.

Two. Send out right arms. Fig. 156, Hoops.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*One.* Rings to A. Fig. 157, Hoops.

Two. Rings to B.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*One.* Touch rings over head. Fig 158, Hoops.

Two. Touch rings below, bending the body as in Fig. 175 Wand Drill.

(Continue these two movements until sixteen is counted.)



FIG. 162.

4th Movement.—*One.* Send feet out, and look under ring. Fig. 162.

Two. Feet together. Rings in position. Fig. 161.

Three. Send feet out and look under ring in opposite direction.

Four. Position as in Fig. 161.

(Continue these four movements until sixteen is counted.)

EXERCISE IV.

In this exercise the partners stand back to back. Supposing them to be standing at position shown in Fig. 161, the three Figs. which follow show how the "back to back" position is assumed.



FIG. 163.

Teacher calls "One". Ring is raised. Fig. 163.

One—we raise a ring like this, (Fig 163.)
 Soon beneath it we shall go,
 Very careful we must be,
 Doing this nice drill you know.



FIG. 164.

When "Two" is called, both faces look under ring. Fig 164.

Two—we peep beneath the ring,
Holding it above, quite high, (Fig. 164.)
Three—our heads go under; now
Each to do her best will try.



FIG. 165.

When the Teacher says "Three," the partners pass under the raised ring, and take the position shown in Fig. 165.

1st Movement.—*One.* Rings straight up.

Two. Position. Fig. 165.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*One.* Rings straight out.

Two. Position. Fig. 165.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*One.* Rings down.

Two. Position. Fig. 165.

(Continue these two movements until sixteen is counted.)



FIG. 164.

When "Two" is called, both faces look under ring. Fig. 164.

Two—we peep beneath the ring,
Holding it above, quite high, (Fig. 164.)
Three—our heads go under; now
Each to do her best will try.



FIG. 165.

When the Teacher says "Three," the partners pass under the raised ring, and take the position shown in Fig. 165.

1st Movement.—*One.* Rings straight up.

Two. Position. Fig. 165.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*One.* Rings straight out.

Two. Position. Fig. 165.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*One.* Rings down.

Two. Position. Fig. 165.

(Continue these two movements until sixteen is counted.)



FIG. 166.

4th Movement.—*One.* Ring out and feet out. Fig. 166.
Two. Feet together, and rings in position. Fig. 165.
Three. Opposite ring sent out and feet on same side.
Four. Position. Fig. 165.



FIG. 167

To return to position, Fig. 161. When Teacher calls—

One—One ring is raised, Fig. 167. At—

Two—The children turn their *backs* towards the raised ring. They are now in position shown by Fig. 164.

Three. At *three*, the raised ring is brought down in *front* of the girls' faces, and the children stand as in Fig. 161.

CHAPTER XLVII.

WANDS.

(See General Instructions, p. 294.)

THE wands should be thirty-six inches in length. For cost, etc.* They are excellent for developing the physique, but should not be given to delicate children, as some of the exercises would require more strength than these would be likely to possess. The wands should not be used by children under six years of age, and may with advantage be kept until the children are past six.



FIG. 168.

FIG. 169.

Children march to places holding wands over heads. **Fig. 172.**

* See Appendix 30.

EXERCISE I.

(The same as Exercise I. of Ring Drill.)

1st Movement.—*Ready.* Wands in position shown by Fig. 168.

One. Wands straight out in front. Fig. 169.

Two. Position. Fig. 168.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*Ready.* Wands as in Fig. 168.

One. Wand up. Fig. 172.

Two. Position. Fig. 168.

(Continue these two movements until sixteen is counted.)



FIG. 170.

FIG. 171.

3rd Movement.—*Ready.* Fig. 168.

One. Wands on knees. Fig. 170.

Two. Position. Fig. 168.

(Continue these two movements until sixteen is counted.)

4th Movement.—*Ready.* Wands held as in Fig. 168.

One. Wands out. Fig. 169.

Two. Position. Fig. 168.

Three. Wands up. Fig. 172.

Four. Position. Fig. 168.

Five. Wands on knees. Fig. 170.

Six. Position. Fig. 168.

Seven. Wands on knees. Fig. 170.

Eight. Position. Fig. 168.

(Repeat these eight movements to complete sixteen.)

EXERCISE II.

1st Movement.—*Ready.* Wands as in Fig. 168.

One. Charge to left. Fig. 171.

Two. Position. Fig. 168.

Three. Charge to right.

Four. Position. Fig. 168.

(Continue these four movements until sixteen is counted.)

2nd Movement.—*Ready.* Fig. 168.

One. Touch floor with wands.

Two. Position. Fig. 168.

Three. Wands straight out in front. Fig. 169.

Four. Position. Fig. 168.

(Continue these four movements until sixteen is counted.)



FIG. 172.

FIG. 173.

3rd Movement.—*Ready.* Fig. 168.

One. Hold wand over head. Fig. 172.

Two. Behind neck. Fig. 173.

Three. Over head. Fig. 172.

Four. Position. Fig. 168.

(Continue these four movements until sixteen is counted.)

4th Movement (slow time).—*Ready.* Fig. 168.

One. Wand on knees. Fig. 170.

Two. Swing wand over head and behind neck. Fig. 173.

(Continue these two movements until sixteen is counted.)



FIG 174

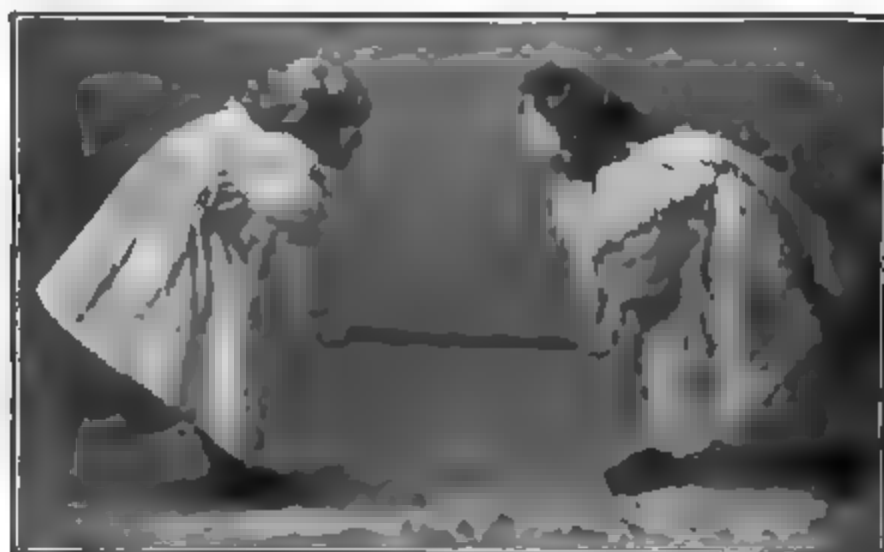


FIG 175.

EXERCISE III. (with partners).

1st Movement (slow time).—*Ready.* Stand face to face holding each other's wands.

One. Touch wands over head. Fig. 174.

Two. Touch wands below, bending. Fig. 175.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*Ready.* Same as for first movement.

One. Left hands out.

Two. Right hands out. Fig. 156, Hoop Drill.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*Ready.* Same as for first movement.

One. Step and look under wand as in Fig. 162, Ring Drill.

Two. Position.

Three. Same as "One" in opposite direction.

Four. Position.

(Continue these four movements until sixteen is counted.)

4th Movement.—See next page.



FIG. 174



FIG. 175.

EXERCISE III. (with partners).

1st Movement (slow time).—*Ready.* Stand face to face holding each other's wands.

One. Touch wands over head. Fig. 174.

Two. Touch wands below, bending. Fig. 175.

(Continue these two movements until sixteen is counted.)

2nd Movement.—*Ready.* Same as for first movement.

One. Left hands out.

Two. Right hands out. Fig. 156, Hoop Drill.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*Ready.* Same as for first movement.

One. Step and look under wand as in Fig. 162, Ring Drill.

Two. Position.

Three. Same as "One" in opposite direction.

Four. Position.

(Continue these four movements until sixteen is counted.)

4th Movement.—See next page.



FIG. 176.

4th Movement.—Marching, see Fig. 176. When a step is taken with the left foot the wand held by the left hand is sent forward, Fig. 176, and when a step is taken with the right foot the right wand is sent forward.

CHAPTER XLVIII.

SCARF DRILL.

(See General Instructions, p. 294.)

THE Scarfs are made of coloured sateen and can be purchased ready for use.* Two colours are generally used, pink and blue, or red and green, so that one row may have one colour, and the next the other. The scarfs shown in the illustrations are forty-five inches long, and seven inches wide, so that four could be made out of one and a quarter yards of sateen. They are pleated four inches from each end. The ends are kept in shape by a piece of strong cane such as the children use for basket-weaving. This is run through the hem at each end of the scarf, and made secure by stitching up the hem at each side. Scarf Drill is similar to Wand Drill, only as the apparatus is pliable the exercise is less violent.

At a Children's Entertainment half the girls wore white dresses crossed from shoulder to waist with mauve sashes (made of Indian muslin at twopence a yard), and had scarfs for drill to match; while the other half had gold-coloured sashes and scarfs to match. The scarfs should be numbered, or have the children's names written upon them, so that each child may always get the same.

EXERCISE I. (with scarf held as a wand).

1st Movement.—*Ready*, as in position shown by Fig. 168, Wands.

One. Scarfs straight out in front.

Two. Position. Fig. 168, Wands.

(Continue these two movements until sixteen is counted.)

* See Appendix 31.

2nd Movement.—*Ready.* Fig. 168, Wands.

One. Scarf over head. See Fig. 172, Wands.

Two. Position. Fig. 168, Wands.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*Ready.* Fig. 168, Wands.

One. Scarf out, and left foot out at an angle of 45°. Fig. 171, Wands.

Two. Feet together. Fig. 168, Wands.

Three. Right foot out and scarf out.

Four. Feet together and scarf in position. Fig. 168, Wands.

(Continue these four movements until sixteen is counted.)



FIG. 177.

FIG. 178.

4th Movement (charging in every direction).—*Ready.* Fig. 168, Wands.

One. Charge to left. Fig. 177.

Two. Feet together and scarf across chest, still facing to left.

Three. Charge again to left. Fig. 178.

Four. Feet together, scarf in position, still facing as in Fig. 178.

Five. Charge again to left. This position is the exact opposite of Fig. 177.

Six. Feet together, scarf in position.

Seven. Charge again to left.

Eight. Feet together, scarf in position

(The child is now in the position from which it started, viz., facing the front.)

Nine. Charge to right instead of left, and continue as in the first eight movements, until sixteen is counted.



FIG. 179.

FIG. 180.

EXERCISE II.

1st Movement (Neck exercise. Slow time).—*Ready.*
Scarf round face. Fig. 179.

One. Incline head and stretch neck towards left shoulder.

2nd Movement.—*Ready.* Fig. 168, Wands.

One. Scarf over head. See Fig. 172, Wands.

Two. Position. Fig. 168, Wands.

(Continue these two movements until sixteen is counted.)

3rd Movement.—*Ready.* Fig. 168, Wands.

One. Scarf out, and left foot out at an angle of 45°. Fig. 171, Wands.

Two. Feet together. Fig. 168, Wands.

Three. Right foot out and scarf out.

Four. Feet together and scarf in position. Fig. 168, Wands.

(Continue these four movements until sixteen is counted.)



FIG. 177

FIG. 178.

4th Movement (charging in every direction).—*Ready.* Fig. 168, Wands.

One. Charge to left. Fig. 177.

Two. Feet together and scarf across chest, still facing to left.

Three. Charge again to left. Fig. 178.

Four. Feet together, scarf in position, still facing as in Fig. 178.

Five. Charge again to left. This position is the exact opposite of Fig. 177.

Six. Feet together, scarf in position.

Seven. Charge again to left.

Eight. Feet together, scarf in position

(The child is now in the position from which it started, viz., facing the front.)

Nine. Charge to right instead of left, and continue as in the first eight movements, until sixteen is counted.



FIG. 179.

FIG. 180.

EXERCISE II.

1st Movement (Neck exercise. Slow time).—*Ready.*
Scarf round face. Fig. 179.

One. Incline head and stretch neck towards left shoulder.

Two. Head erect.

Three. Incline head and stretch neck towards right shoulder.

Four. Head erect.

(Continue these four movements until sixteen is counted.)

2nd Movement.—*Ready.* Scarf over head. Fig. 180

One. Scarf round face. Fig. 179.

Two. Over head. Fig. 180.

(Continue these two movements until sixteen is counted.)



FIG. 181.

FIG. 182.

3rd Movement.—*Ready.* Scarf behind neck. Fig. 182.

One. Round neck. Fig. 181.

Two. Scarf straight out. Fig. 182.

(Continue these two movements until sixteen is counted.)



FIG. 183.

FIG. 184.

4th Movement.—*Ready.* Fig. 168, Wand Drill.

One. Cover eyes as if crying. Fig. 183.

Two. Scarf straight out. Fig. 184.

(Continue these two movements until sixteen is counted.)

EXERCISE III.

1st Movement.—*Ready.* Scarf held straight out in front. Fig. 169, Wands.

One. Scarf round waist, hands meeting behind.

Two. Scarf out in front. Fig. 169, Wands.

(Continue these two movements until sixteen is counted.)



FIG. 185.

FIG. 186.

2nd Movement.—*Ready.* Scarf held out in front.

One. Hands together in front. Fig. 185.

Two. Scarf over head. Fig. 180.

Three. Behind neck. Fig. 186.

Four. Scarf over head. Fig. 180.

(Continue these four movements until sixteen is counted.)

3rd Movement (slow time).—*Ready.* Scarf over head. Fig. 180.

One. Bend knees with scarf held straight over head.

Two. Assume upright position, still holding scarf over head.

(Continue these two movements until sixteen is counted.)

4th Movement.—*Ready.* Position as in Fig. 168, Wands.

One. (Hold the scarf by the two ends in left hand, so as to make a loop.) Left hand out to left.

Two. Shake scarf.

Three. Position. Fig. 168, Wands.

Four. Bow.

Five. Hold scarf by the two ends in right hand.

Six. Shake scarf.

Seven. Position. Fig. 168, Wands.

Eight. Bow.

(Repeat these eight movements so as to complete sixteen.)

The children may go out "Ducking under," as in Exercise V., Gun Drill, the Girls holding each other's Scarfs, where the Boys point Guns together.

CHAPTER XLIX.

GUN DRILL.*

(See General Instructions, p. 294.)



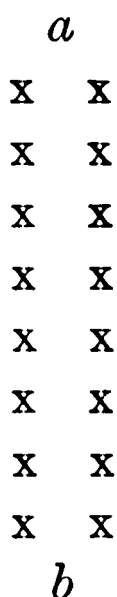
FIG. 187.

EXERCISE I. (marching).

1st Movement.—Marching two abreast. Fig. 187.

* See Appendix 32.

If the boys are in position (*a*, *b*) before sixteen is counted, let them mark time.



2nd Movement.—Marching in fours.

Suppose there are eight “twos” standing behind each other (see diagram at the end of 1st Movement), the first couple march round to the left, the second couple to the right, third to the left, and so on, the first two meeting the second two at point *a*, and marching down *four* abreast to point *b*. If this movement requires more than sixteen, the latter may be counted twice over.

3rd Movement.—Marching eight abreast.

At the end of 2nd Movement, the boys will be standing in fours. The first four march round to the left, the second four to the right, the third to the left, etc., meeting as before at point *a*, and now they march down to point *b* eight abreast.

4th Movement.—Step sideways and open out to places for drill.

The end boy in each row remains stationary.



FIG. 188.

FIG. 189.

EXERCISE II.

1st Movement.—*Ready.* Stand with gun in position shown by Fig. 188.

One. Guns out. Fig. 189.

Two. Guns in position. Fig. 188.

Three. Guns over head in horizontal position.

Four. Position. Fig. 188.

(Continue these four movements until sixteen is counted.)



FIG. 190.

FIG. 191.

2nd Movement.—Ready. Fig. 188.*One.* Gun on knees. Fig. 190.*Two.* Position. Fig. 188.*Three.* Gun over head.*Four.* Position. Fig. 188.

(Continue these four movements until sixteen is counted.)

3rd Movement.—Ready. Fig. 188.*One.* Charge to left. Fig. 191.*Two.* Position. Fig. 188.*Three.* Charge to right.*Four.* Position. Fig. 188.

(Continue these four movements until sixteen is counted.)



FIG. 192.

FIG. 193.

4th Movement (slow time).—*Ready.* Fig. 188.

One. Swing to left. Fig. 192.

Two. Position, still turning to left. Fig. 193.

Three. Swing to right.

Four. Position, still turning to right. (The feet may be turned with the body.)

(Continue these four movements until sixteen is counted.)



FIG. 194.

EXERCISE III.

In fours, boys standing at points marked thus, ● ● ● ●

1st Movement.—*Ready.* Boys stand at points marked, with guns in position. Fig. 188.

One. Guns out to form squares. Fig. 194.

Two. Position. Fig. 188.

Three. Guns over head.

Four. Position. Fig. 188.

(Continue these four movements until sixteen is counted.)

2nd Movement.—*Ready.* Stand to marks as for 1st Movement.

One. Touch floor with guns.

Two. Position. Fig. 188.

Three. Send gun over head and spring up on toes.

Four. Position. Fig. 188.

(Continue these four movements until sixteen is counted.)

Ready. Stand in places as for Exercise II.

Prepare! All kneel on right knee.

Charge! Prepare gun for firing.

Present! Point guns outward.

Fire! Pull trigger.



FIG. 198.

EXERCISE V.

Ready. Stand in couples facing each other.

The first two point their guns upwards, so as to touch in the centre, the next two march under, Fig. 198, and then point their guns, and so on, just as in the game of "Ducking under".

CHAPTER L.

CURVED WANDS.

(See General Instructions, p. 294.)

THE curved wand consists of cane thirty-six inches long, with or without bells.* These are not so good as the straight wands for actual physical development, but they make a pleasing variety, and can be trimmed with leaves to look very pretty for a May festival, or other entertainment.



FIG. 199.

FIG. 200.

The children run to their places holding wand in position, *i.e.*, over head. See Fig. 199.

* See Appendix 83.

EXERCISE I.

1st Movement.—*Ready.* Fig. 199.

One. Wand up. Fig. 200.

Two. Position. Fig. 199.

Three. Wand touch floor. Fig. 201.

Four. Position. Fig. 199

(Continue these four movements until sixteen is counted.)



FIG. 201.

FIG. 202.

2nd Movement.—*Ready.* Position. Fig. 199.

One. Wand touch floor. Fig. 201.

Two. Over head. Fig. 200.

Three. Across shoulders behind. Fig. 202.

Four. Wand over head.

(Continue these four movements until sixteen is counted.)



FIG. 203.

FIG. 204.

3rd Movement.—Ready. Fig. 199.

One. Swing to left. Fig. 203. (Turn feet to left also.)

Two. Wand in position (Fig. 199), still turning to left.

Three. Swing to right.

Four. Wand in position (Fig. 199), still turning to right
(Continue these four movements until sixteen is counted.)

4th Movement.—Ready. Fig. 199.

One. Wand to left. Fig. 204.

Two. Position. Fig. 199

Three. Wand to right.

Four. Position. Fig. 199.

(Continue these four movements until sixteen is counted.)

EXERCISE I.

1st Movement.—*Ready.* Fig. 199.

One. Wand up. Fig. 200.

Two. Position. Fig. 199.

Three. Wand touch floor. Fig. 201.

Four. Position. Fig. 199.

(Continue these four movements until sixteen is counted.)



FIG. 201.

FIG. 202.

2nd Movement.—*Ready.* Position. Fig. 199.

One. Wand touch floor. Fig. 201.

Two. Over head. Fig. 200.

Three. Across shoulders behind. Fig. 202.

Four. Wand over head.

(Continue these four movements until sixteen is counted.)



FIG. 203.

FIG. 204.

3rd Movement.—Ready. Fig. 199.

One. Swing to left. Fig. 203. (Turn feet to left also.)

Two. Wand in position (Fig. 199), still turning to left.

Three. Swing to right.

Four. Wand in position (Fig. 199), still turning to right
(Continue these four movements until sixteen is counted.)

4th Movement.—Ready. Fig. 199.

One. Wand to left. Fig. 204.

Two. Position. Fig. 199

Three. Wand to right.

Four. Position. Fig. 199.

(Continue these four movements until sixteen is counted.)

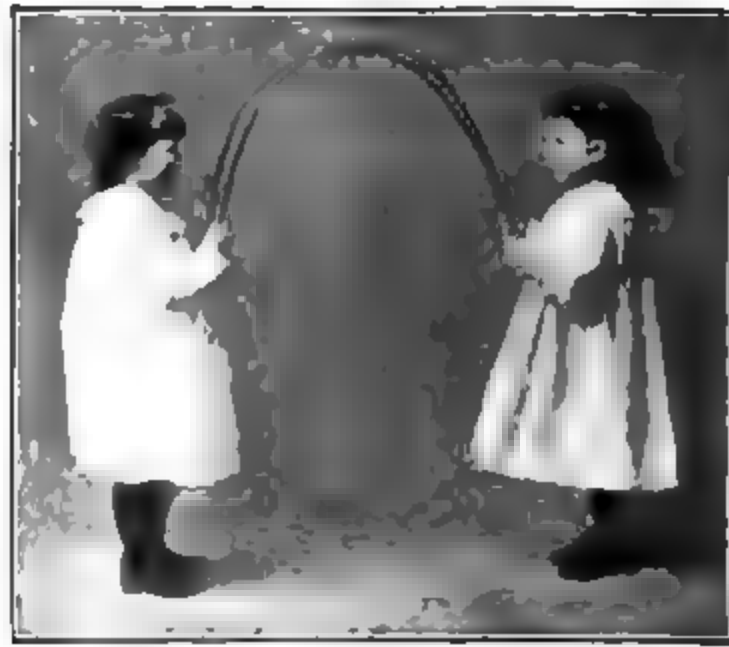


FIG. 205.

EXERCISE II. (with partners standing face to face, Fig. 205, and joining wands).

1st Movement.—*Ready.* Fig. 205.

One. Send wands up. Fig. 206.

Two. Position. Fig. 205.

Three. Wands out.

Four. Position. Fig. 205.

Five. Wands down. Fig. 207.

Six. Position. Fig. 205.

Seven. Wands down again. Fig. 207.

Eight. Position. Fig. 205.

(Repeat these movements to complete sixteen.)

2nd Movement. Repeat 1st Movement.

3rd and 4th Movements on p. 356.



FIG. 206.

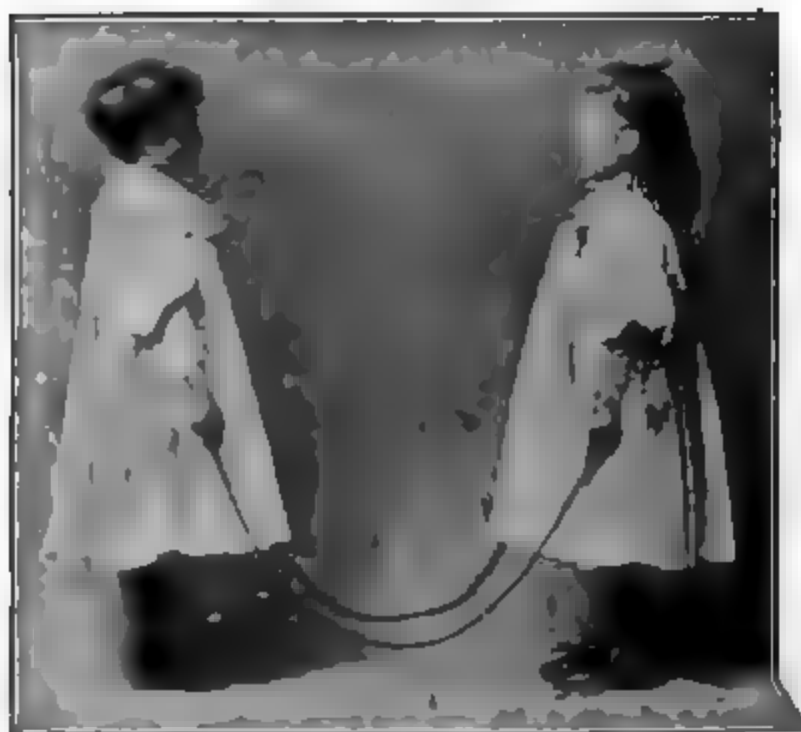


FIG. 207.

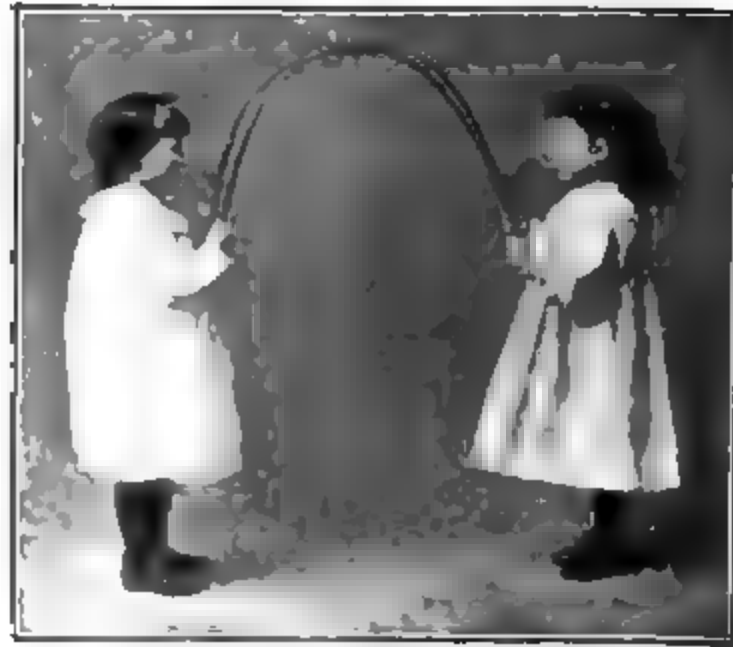


FIG. 205.

EXERCISE II. (with partners standing face to face, Fig. 205, and joining wands).

1st Movement.—*Ready.* Fig. 205.

One. Send wands up. Fig. 206.

Two. Position. Fig. 205.

Three. Wands out.

Four. Position. Fig. 205.

Five. Wands down. Fig. 207.

Six. Position. Fig. 205.

Seven. Wands down again. Fig. 207.

Eight. Position. Fig. 205.

(Repeat these movements to complete sixteen.)

2nd Movement. Repeat 1st Movement.

3rd and 4th Movements on p. 356.



FIG. 206.

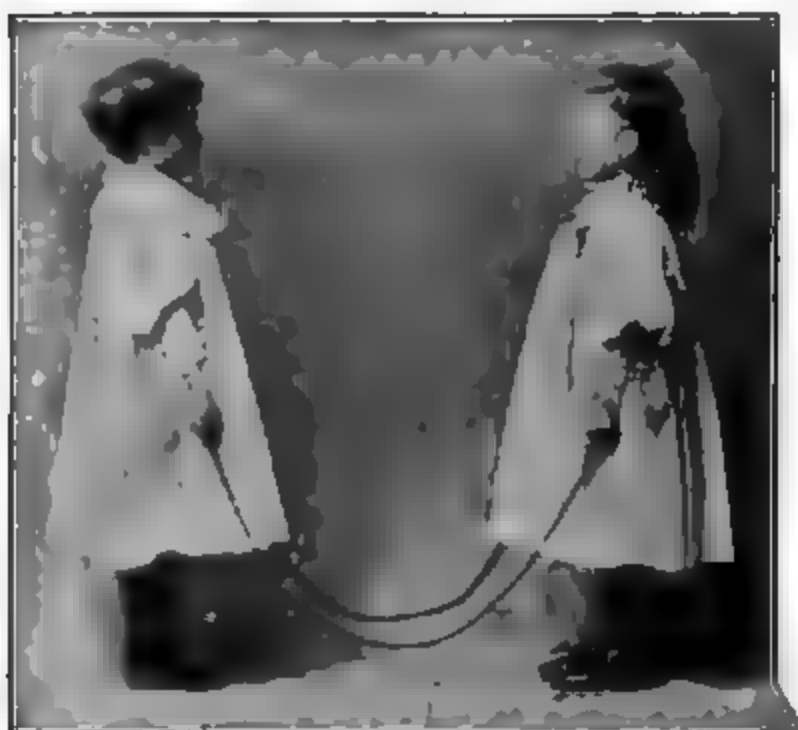


FIG. 207.

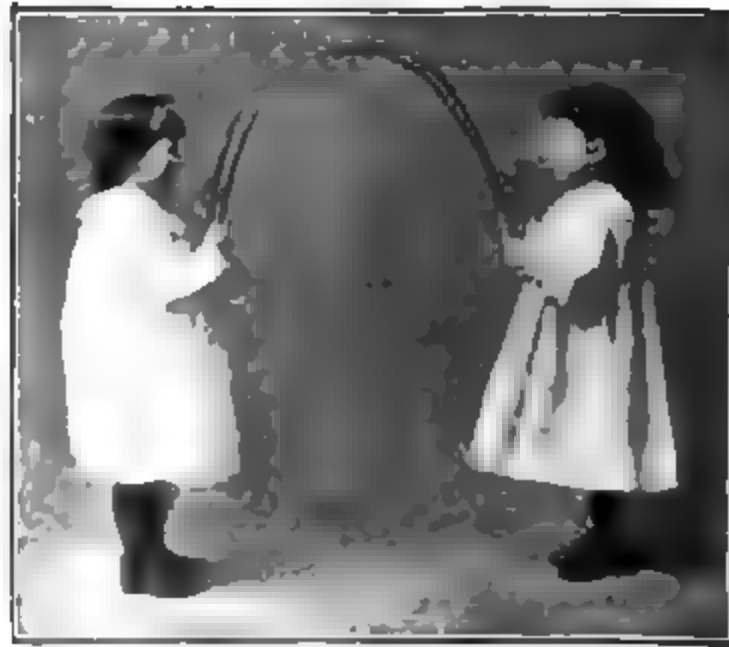


FIG. 205.

EXERCISE II. (with partners standing face to face, Fig. 205, and joining wands).

1st Movement.—*Ready.* Fig. 205.

One. Send wands up. Fig. 206.

Two. Position. Fig. 205.

Three. Wands out.

Four. Position. Fig. 205.

Five. Wands down. Fig. 207.

Six. Position. Fig. 205.

Seven. Wands down again. Fig. 207.

Eight. Position. Fig. 205.

(Repeat these movements to complete sixteen.)

2nd Movement. Repeat 1st Movement.

3rd and 4th Movements on p. 356.



FIG. 206.

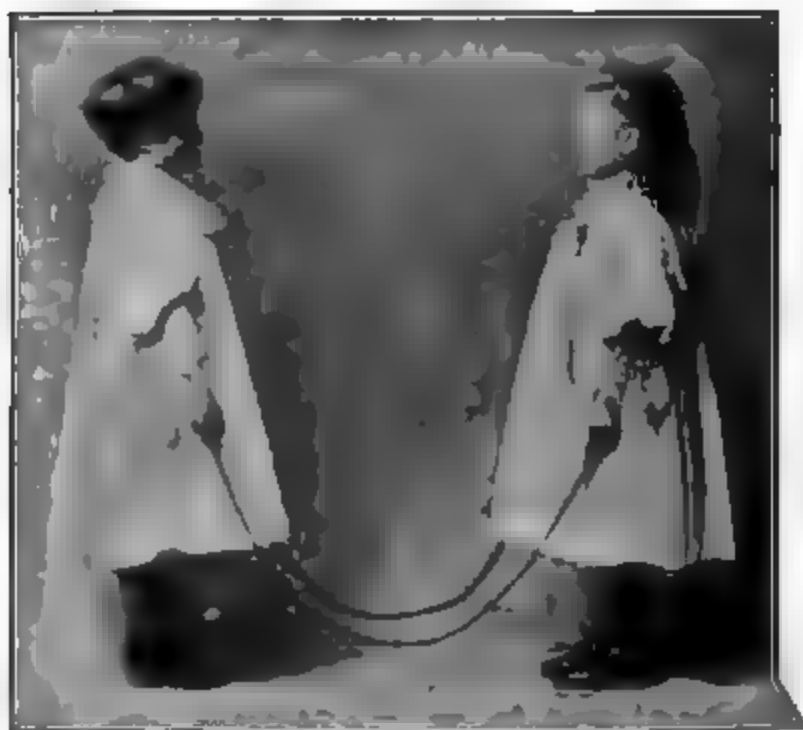


FIG. 207.

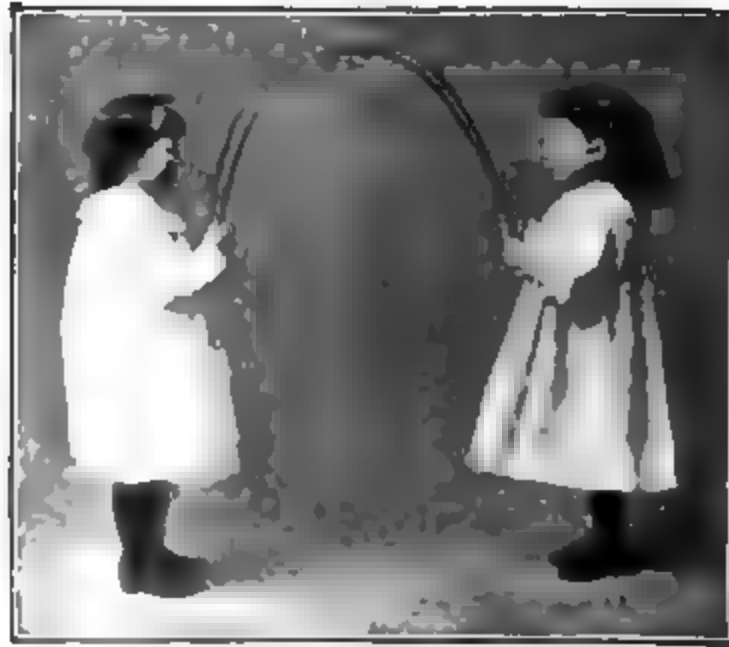


FIG. 205.

EXERCISE II. (with partners standing face to face, Fig. 205, and joining wands).

1st Movement.—*Ready.* Fig. 205.

One. Send wands up. Fig. 206.

Two. Position. Fig. 205.

Three. Wands out.

Four. Position. Fig. 205.

Five. Wands down. Fig. 207.

Six. Position. Fig. 205.

Seven. Wands down again. Fig. 207.

Eight. Position. Fig. 205.

(Repeat these movements to complete sixteen.)

2nd Movement. Repeat 1st Movement.

3rd and 4th Movements on p. 356.



FIG. 206.

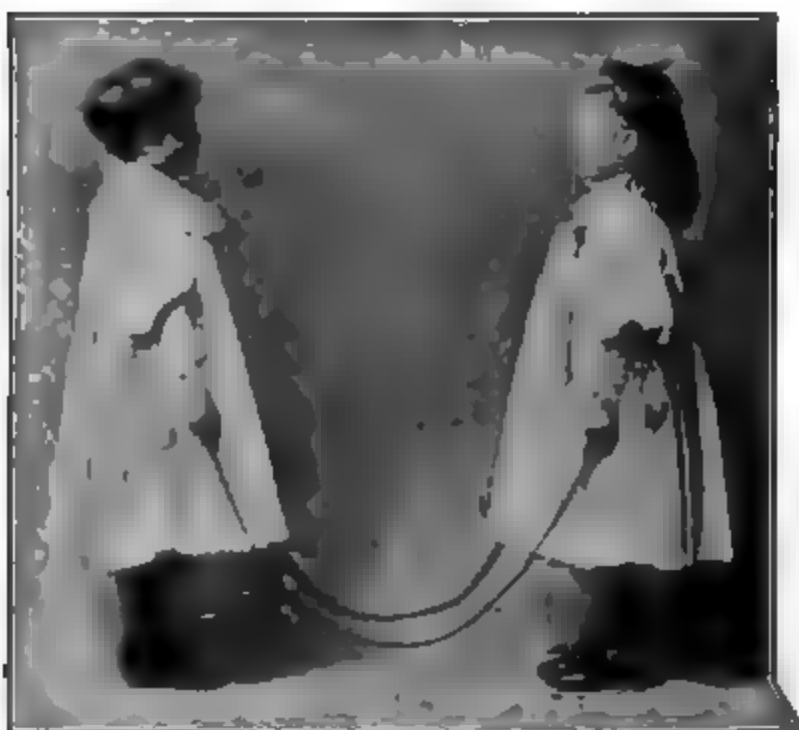


FIG. 207.

3rd Movement.—*Ready.* Fig. 205.

One. Wands to self. Fig. 157, Hoop Drill.

Two. Wands to partner.

(Continue these two movements until sixteen is counted.)

4th Movement.—*Ready.* Fig. 205.

One. Look under wand and send feet out. Fig. 162
Ring Drill.

Two. Position. Fig. 205.

Three. Look under wand in opposite direction, and send feet out.

Four. Position. Fig. 205.

(Continue these four movements until sixteen is counted.)



FIG. 208.

EXERCISE III. (in sets of four).

1st Movement.—*Ready.* Fig. 208.

One. Step round to left with wand in position. Fig. 209.

Two. Feet together, spring up on toes.

(Continue these two movements until eight is counted, then step to right until sixteen is completed.)

2nd Movement.—*Ready.* Fig. 208.

One. Step to centre.

Two. Send wands up, and spring up on toes.

Three. Step back to places and swing wand downward.

Four. Swing wands to position. Fig. 208.

(Continue these four movements until sixteen is counted.)

3rd Movement.—*Ready.* Fig. 205.

One. Wands to self. Fig. 157, Hoop Drill.

Two. Wands to partner.

(Continue these two movements until sixteen is counted.)

4th Movement.—*Ready.* Fig. 205.

One. Look under wand and send feet out. Fig. 16

Ring Drill.

Two. Position. Fig. 205.

Three. Look under wand in opposite direction, and send feet out.

Four. Position. Fig. 205.

(Continue these four movements until sixteen is counted.)



FIG. 208.

EXERCISE III. (in sets of four).

1st Movement.—*Ready.* Fig. 208.

One. Step round to left with wand in position. Fig. 209.

Two. Feet together, spring up on toes.

(Continue these two movements until eight is counted, then step to right until sixteen is completed.)

2nd Movement.—*Ready.* Fig. 208.

One. Step to centre.

Two. Send wands up, and spring up on toes.

Three. Step back to places and swing wand downward.

Four. Swing wands to position. Fig. 208.

(Continue these four movements until sixteen is counted.)



FIG. 209.

3rd Movement (slow time).—*Ready.* Fig. 208, each child holding its own wand.

One. Wands touching in centre. Fig. 209.

Two. Position. Fig. 208.

Three. Swing wands down to toes.

Four. Position.

(Continue these four movements until sixteen is counted.)



FIG. 210.

4th Movement.—With wands crossed.

One. Step to centre and send wands up. Fig. 210.



FIG. 211.

Two. Step back to places. Fig. 211.
(Continue these two movements until sixteen is counted.)

CHAPTER LI.

FAN DRILL.

(See General Instructions, p. 294.)

FAN Drill is very pretty, and much liked by the children. It is invariably used for girls, and is more adapted to produce graceful movement than muscular development. The great drawback to fan drill is that the apparatus is so frail and so easily torn. For cost, etc.* A much stouter fan may be bought for twopence.

EXERCISE I.

Ready. Fans closed and held in position. Fig. 168,
Wands.

Exercise I. of Ring Drill may be used for this.

* See Appendix 34.



FIG. 212.

FIG. 213.

EXERCISE II.

1st Movement.—*Ready.* Fig. 212.

One. Open fan to left. Fig. 213.

Two. Close in front. Fig. 212.

Three. Open to right.

Four. Close in front.

(Continue these four movements until sixteen is counted.)

FAN DRILL.



FIG. 214.

FIG. 215.

2nd Movement (slow time).—*Ready.* Fig. 214.

One. Fan turned over on knees. Fig. 215.

Two. Position shown in Fig. 214.

Three. Fans on knees (Fig. 215), turning to left.

Four. Position (Fig. 214), still turning to left.

Five. Same as "One".

Six. Same as "Two".

Seven. Fan on knees (Fig. 215), turning to right.

Eight. Position (Fig. 214), still turning to right.

(Repeat these eight movements to complete sixteen.)

3rd Movement.—*Ready.* Fig. 214.

One. Cover face with fan.

Two. Lower the fan and peep over.

(Continue these two movements until sixteen is counted.)



FIG. 212.

FIG. 213.

EXERCISE II.

1st Movement.—*Ready.* Fig. 212.

One. Open fan to left. Fig. 213.

Two. Close in front. Fig. 212.

Three. Open to right.

Four. Close in front.

(Continue these four movements until sixteen is counted.)



FIG. 214.

FIG. 215.

2nd Movement (slow time).—*Ready.* Fig. 214.

One. Fan turned over on knees. Fig. 215.

Two. Position shown in Fig. 214.

Three. Fans on knees (Fig. 215), turning to left.

Four. Position (Fig. 214), still turning to left.

Five. Same as "One".

Six. Same as "Two".

Seven. Fan on knees (Fig. 215), turning to right.

Eight. Position (Fig. 214), still turning to right.

(Repeat these eight movements to complete sixteen.)

3rd Movement.—*Ready.* Fig. 214.

One. Cover face with fan.

Two. Lower the fan and peep over.

(Continue these two movements until sixteen is counted.)



FIG. 216.

FIG. 217.

4th Movement (slow time).—*Ready.* Fig. 214.

One. Swing fan to left. Fig. 216.

Two. Put fan on like a bonnet. Fig. 217.

Three. Swing fan to right.

Four. Put fan on like a bonnet.

(Continue these four movements until sixteen is counted.)



FIG. 218.

EXERCISE III. (with partners).

1st Movement (slow time).—*Ready.* Hold partner's fan, and face each other.

One. Bend knees. Fig. 218.

Two. Stand up straight, still holding each other's fans.

(Continue these two movements until sixteen is counted.)



FIG. 219.

2nd Movement.—*Ready.* Fan in right hand.

One. Touch partner's shoulder. Fig. 219.

Two. Touch own shoulder.

(Continue these two movements until sixteen is counted.)

3rd Movement (slow time).—*Ready.* Fan in right hand, partners still facing each other.

One. Fan self.

Two. Fan partner.

(Continue these two movements until sixteen is counted.)



FIG. 220.

4th Movement (very slow time).—*Ready.* Same as for 3rd Movement.

One. Heads bent forward as if whispering, and fans held at the side of the face. Fig. 220.

Two. Fan on chest.

(Continue these two movements until sixteen is counted.)



FIG. 219.

2nd Movement.—*Ready.* Fan in right hand.

One. Touch partner's shoulder. Fig. 219.

Two. Touch own shoulder.

(Continue these two movements until sixteen is counted.)

3rd Movement (slow time).—*Ready.* Fan in right hand, partners still facing each other.

One. Fan self.

Two. Fan partner.

(Continue these two movements until sixteen is counted.)



FIG. 220.

4th Movement (very slow time).—*Ready.* Same as 3rd Movement.

One. Heads bent forward as if whispering, and fans held at the side of the face. Fig. 220.

Two. Fan on chest.

(Continue these two movements until sixteen is counted.



FIG. 221.

FIG. 222.

KEY C. (Four time.)

{ : s | n : s | s : s | f : l | l : l | s : t | t : l | s : d | d } }

{ : s | n : s | s : s | f : l | l : l | s : t | t : l | s : d | d || }

1. With bonnet on (Fig. 221) we bow to you (Fig. 222),
Once more to say "Adieu, adieu,"
Now down, now up, our heads do go,
And all must keep in time, you know.

The "bowing" is continued all through the first verse, the

heads going down with each heavy beat of the music, *i.e.*, the first note in each bar.

2. Our drill is nearly at an end,
So good-bye kisses we will send,
“Good-bye, Good-bye,” to all we say,
Before we lightly dance away.

Fan held in right hand during second verse. The tip of the fan is held near the lips at each heavy beat, and waved outwards at the third beat.

CHAPTER LII.

TAMBOURINE DRILL.

(See General Instructions, p. 294.)

THIS drill affords scope for good physical exercise and many graceful movements. Tambourines of different sizes may be obtained. Those shown in the sketches are six and a half inches in diameter. For cost.* The wood part of the tambourine may be painted in a bright colour, and made pretty with streamers of coloured ribbons. At an entertainment where the girls did tambourine drill, half of them had gold sashes made of Indian muslin (twopence a yard) with tambourines painted blue, and gold ribbons tied in for streamers, while the other half wore blue sashes on their white dresses, and had the tambourines painted gold, and tied with blue streamers.

* See Appendix 35.



FIG. 223.

FIG. 224.

The girls march to places with tambourines on their heads.
Fig. 224.

The two verses which follow may be sung to the tune given on p. 368, as girls march to places.

The children all come marching in,
Their Tambourine drill to begin,
Such pretty movements you will see,
As we are working merrily.

We swing to left, or swing to right,
And tap it, tap with touch so light,
Or hold the tambourine straight out,
And twist it, twist it round about.

Words to accompany 4th Movement of Exercise II., p.
375. Tune—"The Campbells are Coming".

<i>One.</i>	<i>Two.</i>	<i>Three.</i>	<i>Four.</i>
In front, and above, and in front, behind,			
Keep time to the music, and if you mind,			
In front, and above, and in front, behind,			
To "Campbells are Coming" will go you'll find.			



FIG. 225

FIG. 226.

EXERCISE I.

1st Movement (slow time).—*Ready.* Tambourine in left hand.

One. Swing tambourine upwards to the left, with the left hand, and look at it. Fig. 225.—(Turn feet to left also.)

Two. Strike with right hand, still looking up. Fig. 226.

Three. Swing to right, with tambourine in right hand, and look at it.

Four. Strike with left hand, still looking at tambourine.

(Continue these four movements until sixteen is counted.)

2nd Movement.—*Ready.* Fig. 223.

One. Charge to left.

Two. Position, Fig. 223, and spring up on toes.

Three. Charge to right.

Four. Position, Fig. 223, and spring up on toes.

(Continue these four movements until sixteen is counted.)



FIG. 227.

FIG. 228.

3rd Movement (Wrist Exercises).—*Ready.* Tambourine straight out.

One. Twist so that right hand is on the top. Fig. 227.

Two. Twist so that left hand is on the top. Fig. 228.

(Continue these two movements until sixteen is counted.)

4th Movement. *Ready.* Fig. 223.

One. Hold tambourine over head with both hands. Fig. 153, Hoop Drill.

Two. Let tambourine rest on head. Fig. 224.

(Continue these two movements until sixteen is counted.)

EXERCISE II.

1st Movement.—*Ready.* Fig. 223.

One. Swing tambourine to left, turning body at the same time. Fig. 216, Fan Drill.

Two. Tambourine on head like a hat. Fig. 224.

Three. Swing to right.

Four. Same as "Two".

(Continue these four movements until sixteen is counted.)



FIG. 225.

FIG. 226.

EXERCISE I.

1st Movement (slow time).—*Ready.* Tambourine in left hand.

One. Swing tambourine upwards to the left, with the left hand, and look at it. Fig. 225.—(Turn feet to left also.)

Two. Strike with right hand, still looking up. Fig. 226.

Three. Swing to right, with tambourine in right hand, and look at it.

Four. Strike with left hand, still looking at tambourine.

(Continue these four movements until sixteen is counted.)

2nd Movement.—*Ready.* Fig. 223.

One. Charge to left.

Two. Position, Fig. 223, and spring up on toes.

Three. Charge to right.

Four. Position, Fig. 223, and spring up on toes.

(Continue these four movements until sixteen is counted.)



FIG. 227.

FIG. 228.

3rd Movement (Wrist Exercises).—*Ready.* Tambourine straight out.

One. Twist so that right hand is on the top. Fig. 227.

Two. Twist so that left hand is on the top. Fig. 228.

(Continue these two movements until sixteen is counted.)

4th Movement.—*Ready.* Fig. 223.

One. Hold tambourine over head with both hands. Fig. 153, Hoop Drill.

Two. Let tambourine rest on head. Fig. 224.

(Continue these two movements until sixteen is counted.)

EXERCISE II.

1st Movement.—*Ready.* Fig. 223.

One. Swing tambourine to left, turning body at the same time. Fig. 216, Fan Drill.

Two. Tambourine on head like a hat. Fig. 224.

Three. Swing to right.

Four. Same as "Two".

(Continue these four movements until sixteen is counted.)



FIG. 229.

2nd Movement.—*Ready* Tambourine in right hand.

One. Touch own right shoulder with tambourine, held in the right hand (left hand on waist).

Two. Touch the next girl's shoulder. Fig. 229.

(Continue these two movements until eight is counted.)

Nine. Change tambourine to left hand, and touch own shoulder.

Ten. Touch next girl's shoulder, and so on until sixteen is counted.

3rd Movement.—*Ready.* Tambourine in left hand.

One. Step sideways with left foot, swinging tambourine upward at the same time.

Two. Look at tambourine, hop on the left foot, and strike with right hand at the same time.

Three. Same as "One" with tambourine in right hand, and stepping to right.

Four. Same as "Two" to right.

(Continue these four movements until sixteen is counted.)

4th Movement.—*Ready.* Tambourine in left hand.

One. Hold tambourine straight out in front and strike with right hand.

Two. Strike over head.

Three. Same as "One".

Four. Strike tambourine twice behind, quickly.

This exercise is done to the tune "The Campbells are Coming". See Exercise II., 3rd Movement, Dumb Bell Drill.



FIG. 230.

EXERCISE III.

1st Movement.—*Ready.* In rows with tambourines joined, fingers in holes of tambourine.

One. Charge to left. Fig. 230.

Two. Feet together. Spring up on toes.

Three. Charge to right.

Four. Feet together. Spring up on toes.

(Continue these four movements until sixteen is counted.)

2nd Movement.—Ready. Stand in rows with tambourines joined.

One. First and third rows step to left, while second and fourth step to right.

Two. Feet together. All spring up on toes.

Three. First and third step to right, while second and fourth step to left.

Four. Same as "Two".

(Continue these four movements until sixteen is counted.)

If this movement is found difficult, the rows may all step in the same direction, i.e., all to left, or all to right.



FIG. 231.

3rd Movement.—Ready. First and second rows face each other, and third and fourth face each other, standing about three feet apart.

One. All step forward with left foot.

Two. Feet together. Spring up on toes.

Three. Raise tambourines, and strike tambourines of row facing. Fig. 231.

Four. Strike again.

Five. Step back with right foot.

Six. Same as "Two".

Seven. Swing tambourines down and bow.

Eight. Position as in "Ready".

(Repeat these eight movements until sixteen is counted.)

If it is desired to omit the 4th Movement, repeat the 3rd.

4th Movement.—*Ready.* Second and third rows face each other, first and fourth face outwards.

One. Second and third step together, while first and fourth step outwards.

Two. Second and third rows strike together, Fig. 231; first and fourth each strike own tambourine.

Three. All step back to places.

Four. Spring up on toes.

(Continue these four movements until sixteen is counted.)

Girls may skip out with tambourine on head, or they may dance out to polka step, striking tambourines to right and left alternately.

2nd Movement.—Ready. Stand in rows with tambourines joined.

One. First and third rows step to left, while second and fourth step to right.

Two. Feet together. All spring up on toes.

Three. First and third step to right, while second and fourth step to left.

Four. Same as "Two".

(Continue these four movements until sixteen is counted.)

If this movement is found difficult, the rows may all step in the same direction, i.e., all to left, or all to right.



FIG. 291.

3rd Movement.—Ready. First and second rows face each other, and third and fourth face each other, standing about three feet apart.

One. All step forward with left foot.

Two.

Three. Raise tambourines, and strike tambourines of row facing. Fig. 231.

Four. Strike again.

Five. Step back with right foot.

Six. Same as "Two".

Seven. Swing tambourines down and bow.

Eight. Position as in "Ready".

(Repeat these eight movements until sixteen is counted.)

If it is desired to omit the 4th Movement, repeat the 3rd.

4th Movement.—*Ready.* Second and third rows face each other, first and fourth face outwards.

One. Second and third step together, while first and fourth step outwards.

Two. Second and third rows strike together, Fig. 231; first and fourth each strike own tambourine.

Three. All step back to places.

Four. Spring up on toes.

(Continue these four movements until sixteen is counted.)

Girls may skip out with tambourine on head, or they may dance out to polka step, striking tambourines to right and left alternately.

2nd Movement.—Ready. Stand in rows with tambourines joined.

One. First and third rows step to left, while second and fourth step to right.

Two. Feet together. All spring up on toes.

Three. First and third step to right, while second and fourth step to left.

Four. Same as "Two".

(Continue these four movements until sixteen is counted.)

If this movement is found difficult, the rows may all step in the same direction, i.e., all to left, or all to right.



FIG. 231.

3rd Movement.—Ready. First and second rows face each other, and third and fourth face each other, standing about three feet apart.

One. All step forward with left foot.

Two. Feet together. Spring up on toes,

Three. Raise tambourines, and strike tambourines of row facing. Fig. 231.

Four. Strike again.

Five. Step back with right foot.

Six. Same as "Two".

Seven. Swing tambourines down and bow.

Eight. Position as in "Ready".

(Repeat these eight movements until sixteen is counted.)

If it is desired to omit the 4th Movement, repeat the 3rd.

4th Movement.—*Ready.* Second and third rows face each other, first and fourth face outwards.

One. Second and third step together, while first and fourth step outwards.

Two. Second and third rows strike together, Fig. 231; first and fourth each strike own tambourine.

Three. All step back to places.

Four. Spring up on toes.

(Continue these four movements until sixteen is counted.)

Girls may skip out with tambourine on head, or they may dance out to polka step, striking tambourines to right and left alternately.

CHAPTER LIII.

MAYPOLE DANCE.

Preliminary.—Some Maypoles* are made with sixteen ribbons, and some with twenty-four. The Maypole illustrated here has the latter number. Twenty-four brass-headed nails may be placed at equal distances apart, to form a large circle, round the Maypole, or a large circle may be drawn in chalk, and divided into twenty-four (or sixteen) equal parts. To draw the circle, tie a piece of string round the Maypole loosely; fix the diameter of the circle required and cut the string accordingly. Then tie a piece of chalk at the loose end of the string, draw the circle carefully and place the marks at equal distances.

In the same way, a smaller circle within the larger one is drawn. The position of the small circle is shown in Fig. 232, where the boys are kneeling. In these illustrations the circles are marked with brass-headed nails, which do not show in the picture.

Maypole Dance.—The boys, twelve in number, stand with their girl partners on the left side of them. The couples should be one behind the other in a straight line.

Ready. Boys place right hand and girls place left hand on side, the other two hands (boy's left and girl's right) are joined and raised.

1st Movement (to dance music, four time).—Run round the Maypole on the larger circle twice, then drop hands, face

* See Appendix 36.



FIG 232.

the Maypole, and stand to marks. The ribbons are now given to the children and held with both hands. The boys have blue, and the girls white. Some Maypoles have six or eight various colours.

2nd Movement (waltz music).—The children must count softly in every movement.

One. Boys move left foot one step to the left and slide right foot to it.

Two. Move right to right and slide left foot to it.

Continue waltzing to centre thus, until twelve is counted. By this time boys should have reached the smaller circle.

Thirteen. Boys kneel on left knee, Fig. 232, and girls, who have been standing still until now, take ribbon in right hand, place left hand on side, and turn to left, Fig. 232, ready to run round as soon as the sixteen of the 2nd Movement is finished.

3rd Movement (dance music, four time).—Girls run round until two sixteens are counted, then turn, and run round again until places are reached at the end of four sixteens. They then face Maypole.

4th Movement (waltz music).—*Ready.* A chord is struck for boys to rise. Boys waltz back to places, which they should reach by the time sixteen is counted.

5th Movement.—Same as 2nd Movement; this time girls waltz to centre, and boys prepare for dancing round

6th Movement.—Same as 3rd Movement. Boys run round, while girls remain kneeling.

7th Movement.—Same as 4th Movement. Girls waltz back to places.

8th Movement (four time).

One to Four. Bow to partners.

Five to Eight. Turn back to partner, and bow to child facing.

Nine to Twelve. Bow to Maypole.

Thirteen to Sixteen. Boys turn to right, while girls turn



FIG. 293.

the Maypole, and stand to marks. The ribbons are now given to the children and held with both hands. The boys have blue, and the girls white. Some Maypoles have six or eight various colours.

2nd Movement (waltz music).—The children must count softly in every movement.

One. Boys move left foot one step to the left and slide right foot to it.

Two. Move right to right and slide left foot to it.

Continue waltzing to centre thus, until twelve is counted. By this time boys should have reached the smaller circle.

Thirteen. Boys kneel on left knee, Fig. 232, and girls, who have been standing still until now, take ribbon in right hand, place left hand on side, and turn to left, Fig. 232, ready to run round as soon as the sixteen of the 2nd Movement is finished.

3rd Movement (dance music, four time).—Girls run round until two sixteens are counted, then turn, and run round again until places are reached at the end of four sixteens. They then face Maypole.

4th Movement (waltz music).—*Ready.* A chord is struck for boys to rise. Boys waltz back to places, which they should reach by the time sixteen is counted.

5th Movement.—Same as 2nd Movement; this time girls waltz to centre, and boys prepare for dancing round

6th Movement.—Same as 3rd Movement. Boys run round, while girls remain kneeling.

7th Movement.—Same as 4th Movement. Girls waltz back to places.

8th Movement (four time).

One to Four. Bow to partners.

Five to Eight. Turn back to partner, and bow to child facing.

Nine to Twelve. Bow to Maypole.

Thirteen to Sixteen. Boys turn to right, while girls turn



FIG. 233.

to left, and step to the position shown in Fig. 233. The children are now ready for plaiting the Maypole.

9th Movement (four time).—Suppose the tune to be the “Keel Row”. (See Drill, General Instructions, p. 294.)

One to Four. Both boys and girls step forward with left foot at “One,” with right at “Two,” left at “Three,” and when “Four” is counted they should be in the position shown in Fig. 234, *i.e.*, boys *inside* and girls *outside*.

Five, Six, Seven and Eight. The children step to the position shown in Fig. 233.

Nine to Twelve. Step to the position in Fig. 234.

Thirteen to Sixteen. To position shown in Fig. 233.

Continue these movements as long as the children can move comfortably.

To unplait the ribbons, each child turns in the *opposite* direction to that in which it was previously moving, the ribbon is changed into the other hand, and the children proceed as before.

N.B.—If any mistake has been made in the plaiting, the *un-plaiting* will discover it, and unless it is detected at once, a hopeless tangle will ensue. The ribbons should be closely watched at the time of plaiting. The following rhyme may help the children :—

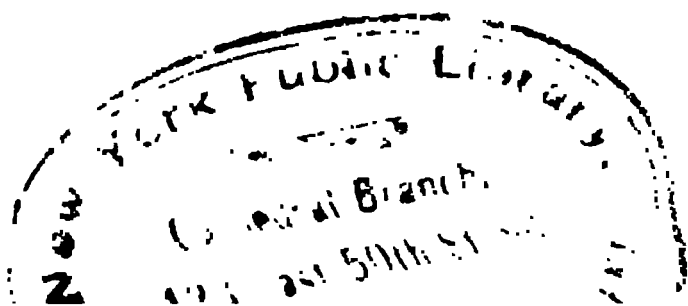
KEY E.

One two three four five six seven eight
 { | m : s . s | d' : l . s | f : r . r | m : r . d | m : s . s | f

Girls out, while boys are in, Next all the boys are out, Girls out, while

{ | d' : l . s | f : r . r | m : r . d |

boys are in, Girls, boys, take turns about.



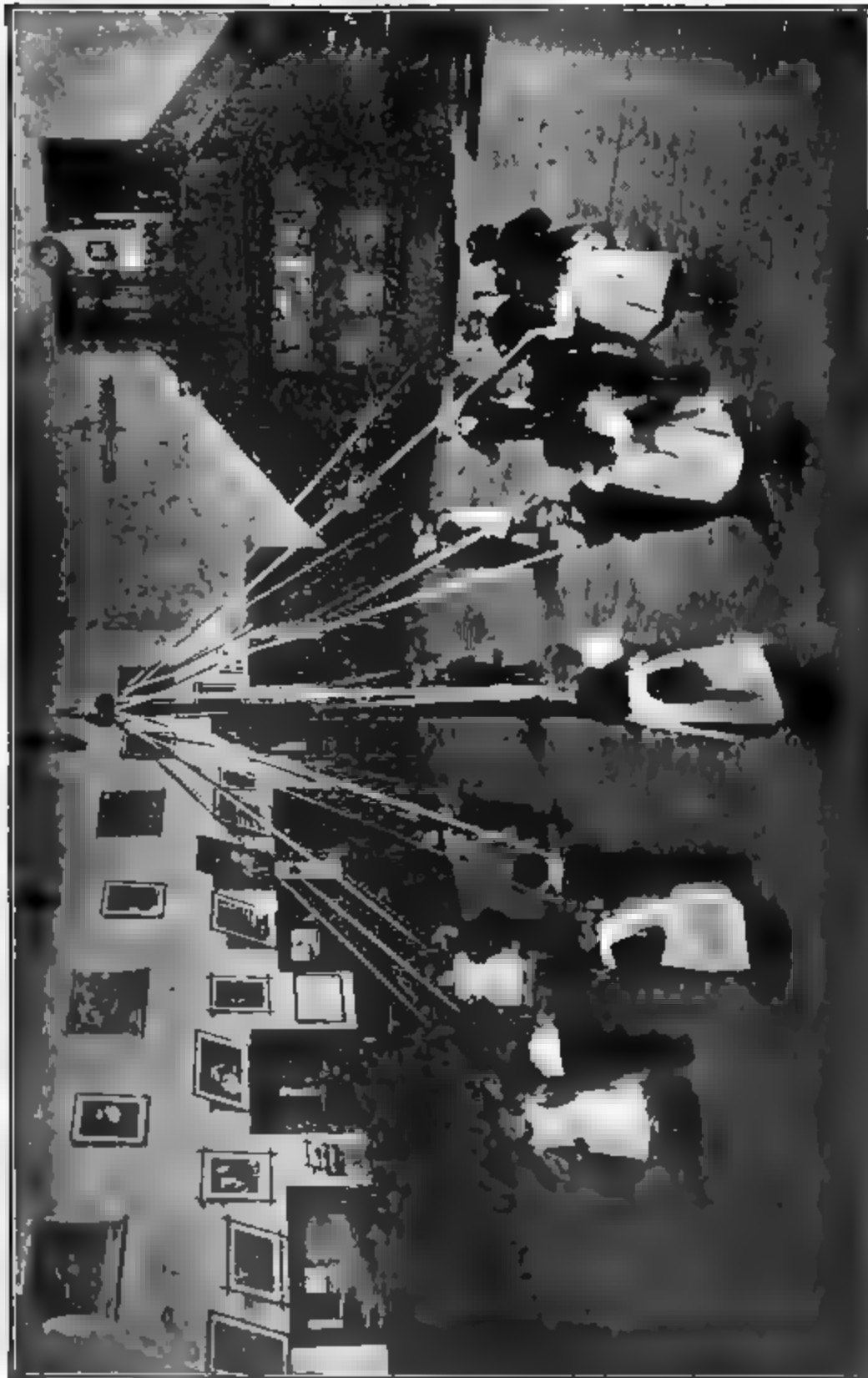


FIG. 281

to left, and step to the position shown in Fig. 233. The children are now ready for plaiting the Maypole.

9th Movement (four time).—Suppose the tune to be the “Keel Row”. (See Drill, General Instructions, p. 294.)

One to Four. Both boys and girls step forward with left foot at “One,” with right at “Two,” left at “Three,” and when “Four” is counted they should be in the position shown in Fig. 234, *i.e.*, boys *inside* and girls *outside*.

Five, Six, Seven and Eight. The children step to the position shown in Fig. 233.

Nine to Twelve. Step to the position in Fig. 234.

Thirteen to Sixteen. To position shown in Fig. 233.

Continue these movements as long as the children can move comfortably.

To unplait the ribbons, each child turns in the *opposite* direction to that in which it was previously moving, the ribbon is changed into the other hand, and the children proceed as before.

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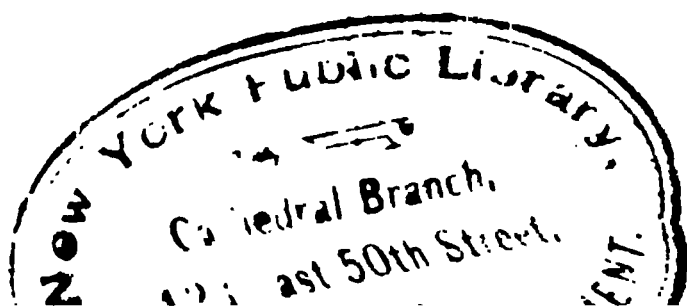
KEY E.

<i>One</i>	<i>two</i>	<i>three</i>	<i>four</i>	<i>five</i>	<i>six</i>	<i>seven</i>	<i>eight</i>
{ m	: s . s	d	: l . s	f	: r . r	m	: r . d
							m : s . s }

Girls out, while boys are in, Next all the boys are out, Girls out, while

{ d	: l . s	f	: r . r	m	: r . d	
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boys are in, Girls, boys, take turns about.



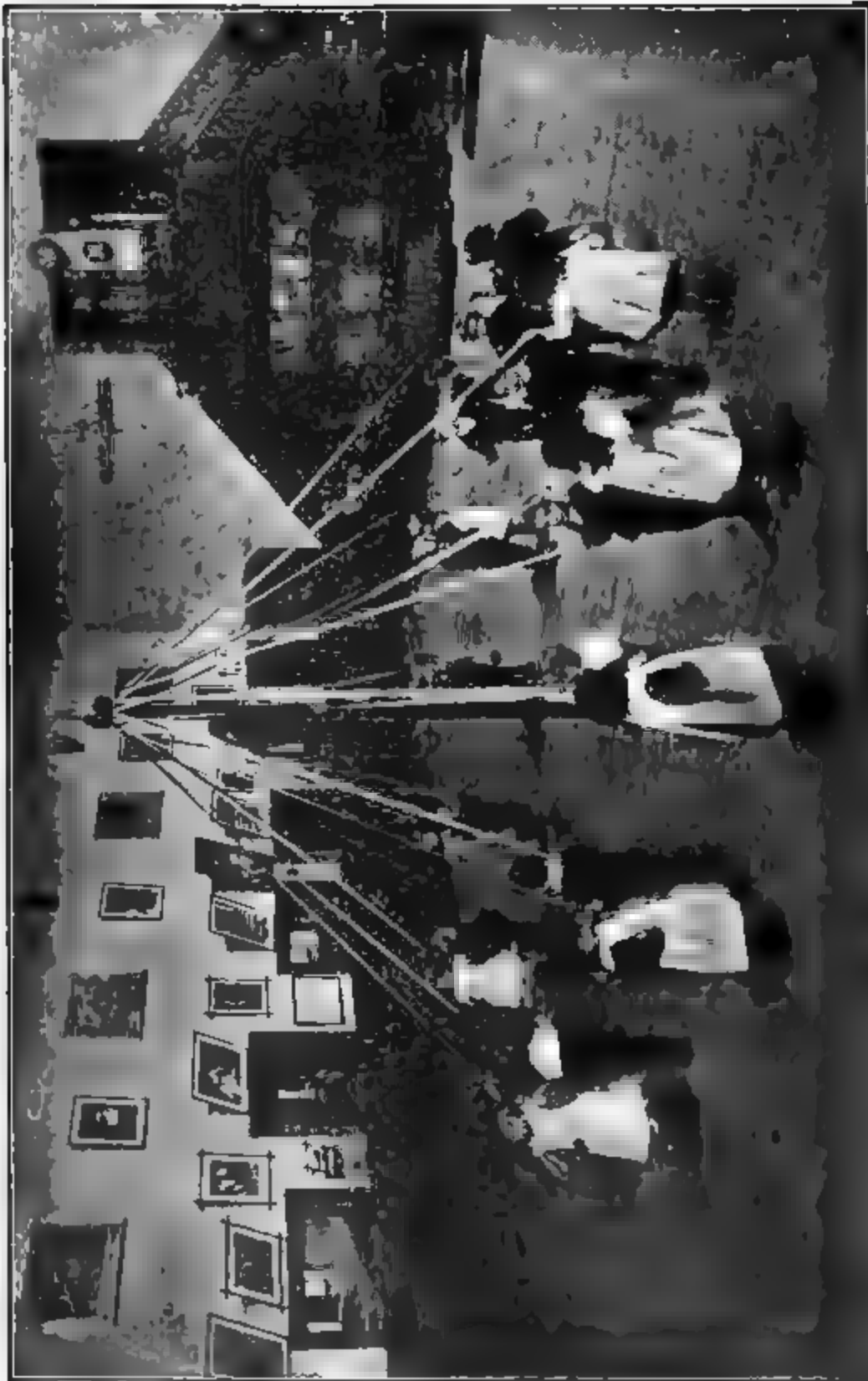
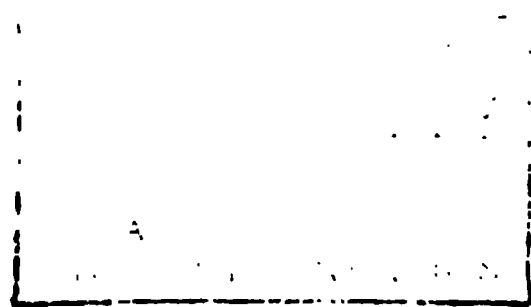
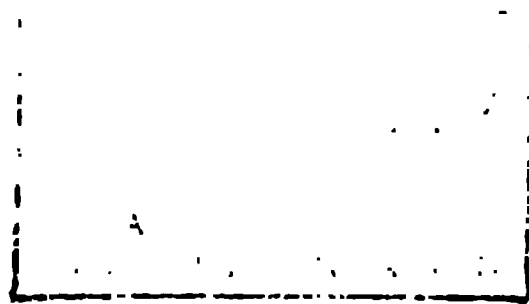


FIG. 281



APPENDIX.



APPENDIX.



APPENDIX.

1. **Signal.** Ordinary size, 1s. 2d.; large size, 1s. 11d. each net.
Philip & Tacey.
2. **Saltaire Action Songs.** Published by J. Curwen & Sons.
3. **Guessing Games.** By Lois Bates. Published by A. Brown & Sons,
Hull.
4. **Saltaire Kindergarten Games.** Published by J. Curwen & Sons.
5. **Jointed Laths.** 1d. each, 9d. per dozen net. Philip & Tacey.
6. **Basket Frames (brown).** 6d. per packet of 8. Philip & Tacey.
7. **A. L. Embroidery Cards.** By Lois Bates. 12 packets, 4½d. per
packet of 10.
8. **A. L. Embroidery Models.** 4 packets, 12 in each, at 1s. per packet,
plain; at 1s. 4d., coloured. Arranged by Lois Bates.
9. **Demonstration Frame for Mat-weaving.** 5s. 8d., or with stand,
11s. net.
10. **Cardboard Mats (blue and white).** Per packet of 25 at 1s. 3d.
11. **Paper for Folding.** The Child Life Series. 6d. per 100. The
Artistic Series. 1s. for 500.
12. **Clay for Modelling.** White, 1s. 2d. per stone, 6s. 9d. per cwt. net
prices.
Clay for Modelling. Terra Cotta, 2s. 3d. per stone, 10s. per cwt.
net prices.
Plasticine for Modelling. Gray, 1s. 4d.; Terra Cotta, Blue, Yellow,
1s. 6d. per lb. net prices.
13. **A. L. Box of Models.** By Lois Bates. Published by E. J.
Arnold & Son.
14. **Sand for Modelling.** Per stone, 1s. 3d. net.
15. **Cane for Weaving.** Coarse or medium, 1s. 11d. per lb.; fine,
2s. 3d. per lb. net.
16. **Cane and Rush Weaving.** By Walter and Kate Littlewood.
Cloth, 1s. 6d. net. Published by George Philip & Son, Ltd.
17. **Giant Letters.** Published by McDougalls, London. 10s. 6d. set.
18. **Number Table, invented by Miss Wilson.** 4s. 6d.
19. **Arithmetic Frame, invented by Miss Wilson.** 15s.

20. Cardboard Coins. Box of 194, with Pamphlet, 1s. 4d. net.
Philip & Tacey.
21. Toys for Babies' Object Lessons. 1d. each. E. J. Arnold & Son.
22. Recitations for Infants. By Lois Bates. Longmans, Green, & Co.
23. Fairy Tale of a Dog, a Cat and a Fox. Longmans, Green, & Co.
24. Paragon Demonstration Specimen, Hemming. 1s. net.
25. Kindergarten Modulator. J. Curwen & Son. 2s.
26. Musical Bells. 2s. 6d. and 3s. per dozen pairs net.
27. Dumb Bells, Iron, 8 oz. each. 2s. per dozen pairs net.
Dumb Bells, Wood. 4 oz. each. 3s. per dozen pairs; 6 oz. each,
4s. 6d. per dozen pairs net prices.
28. Hoops. 1s. 6d. per dozen net.
29. Rings, 4 inches. 2s. 9d. per dozen; 6 inches, 4s. 6d. per dozen net.
30. Wands, 36 inches. 2s. 9d. per dozen net.
31. Scarves. 4s. 6d. per dozen net.
32. Guns (Philips' Registered), 42 inches. 6s. per dozen; 48 inches,
10s. per dozen net.
33. Canes for Curved Cane Drill. 3s. per dozen net.
34. Fans. 10d. per dozen net.
35. Tambourines. Small size, 2s. 6d. per dozen; medium, 3s.; large,
4s. 9d. per dozen net.
36. Maypole, 9 feet. Revolving Top and Braids. Complete for Indoor
Use. 27s. 6d. net.
Maypole, 9 feet. Revolving Top and Braids. Complete for Outdoor
Use. 25s. net.

CENTRAL RESERVE

20. Cardboard Coins. Box of 194, with Pamphlet, 1s. 4d. net.
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21. Toys for Babies' Object Lessons. 1d. each. E. J. Arnold & Son.
22. Recitations for Infants. By Lois Bates. Longmans, Green, & Co.
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